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ABSTRACT

In this study of black employment in the building trades in Connecticut, a state-wide survey was made of workers, students, apprentices, project directors, public officials, and union and trade association officers. The survey showed that even with an increase of nearly 50 percent since 1960, blacks still represent less than 7 percent of all construction workers, and few of those are in skilled trades. This has continued despite increasing shortages of skilled labor for two reasons: (1) With few blacks now employed, there are few who can pass on job information to other blacks, and (2) Many blacks are culturally disadvantaged, lacking the necessary competency at mathematics and science. Although manpower shortages are expected to continue for the next decade, there is little possibility of increased black representation, at least for the next 5 years, because of the present shortage of blacks in the lengthy apprenticeship programs. (BH)

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Blacks in the Construction Trades & Effect on Connecticut Economy

June 1970
Labor Education Center
The University of Connecticut

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PREFACE

This study was made by the Labor Education Center of the University of Connecticut at the request of the Connecticut Commission on Human Rights and Opportunities and funded by the Connecticut Research Commission.

Other studies made of minority group employment in Connecticut include "Minority Group Integration by Labor and Management," "Training of Negroes In The Skilled Trades," "Survey of Employment Patterns of Retail Food Super Markets," and "Minority Group Employment in State Government." Further studies of this nature are contemplated in other industry and business activities.

The study was originally designed to obtain information on Spanish-Americans as well as blacks. However, it became apparent early in the study that it was difficult to identify the Spanish-Americans both on the jobs and from employers' payroll records. Rather than collect and present information which might be inaccurate, it was decided to confine the study to blacks.

We thank the many construction workers, apprentices, students, union officials, project directors, construction employers, trade association officers, school administrators, and public officials who so generously supplied the information that comprises this report. As you will note, the data presented herein is original material collected from these sources.

The study was conducted by the Center in the hope that it will lead to a better understanding of the status of blacks in the building trades and to solutions of the problems connected therewith.

Professor John J. Glynn, Director, Labor Education Center

Professor David Pinsky, Chief Investigator

FOREWORD

The Commission on Human Rights and Opportunities acknowledges with gratitude the research assistance of the University of Connecticut. The Labor Education Center, under the auspices of the Institute of Urban Research, studied in depth the pertinent facets of the construction industry and building trades in Connecticut relative to employment and training opportunities of minority group persons.

Professor David Pinsky, the principal investigator, has presented a comprehensive and objective analysis of the findings. Earlier, Professor Pinsky, in a proposal for the study, pointed out that "one of the most important and explosive issues in Connecticut today is the limited opportunity for minority workers to obtain employment other than in low-paying, menial and unskilled occupations. The purpose of the study was to enable the Commission on Human Rights to formulate a plan of action based on and supported by facts for providing entry opportunities for minority group workers in skilled construction occupations."

At this point, I should like to remind those who might not be familiar with the law, that the Commission on Human Rights has been authorized by Statute since 1947 to "compile facts concerning discrimination in employment, violations of civil liberties, and other related matters; and to study the problem of discrimination in all or in specific fields of human relationships."

Since the Commission on Human Rights has been given this mandate, it has pursued various research studies and projects in areas of employment, housing, race relations, and education.

The first and broadest in the scope of the surveys of industries was undertaken in 1951, and

published in 1953, under the title of "Minority Group Integration by Labor and Management." The study revealed a wide diversity of practices in the hiring of Negroes. Most of them were working at lower-grade production jobs; a small proportion worked at skilled and clerical occupations; and a very few were employed in managerial or supervisory capacities. About a quarter of the companies at the time either employed no Negroes at all, or if they did, only a very few.

The next study dealt with the "Training of Negroes In Skilled Trades." It was concerned, primarily, with the extent and types of training received by Negroes in the skilled trades. Principal findings revealed that the experience of Negroes in acquiring skilled trade training compared unfavorably with whites in three respects: 1) the types of skills required; 2) post-vocational school opportunities for employment in trades; and 3) opportunities for on-the-job apprenticeship training.

In 1964, a study of food industries was undertaken. The first part dealt with the employment of minority persons by the food distributors in the State. Among these were bakeries, dairies, and non-alcoholic beverages distributors. The second part concerned itself with the employment patterns of retail food supermarkets.

As a result of the study of the food industries in Connecticut, the Commission on Civil Rights - now known as the Commission on Human Rights and Opportunities - received a grant of $15,000 in 1967 from the Equal Employment Opportunities Commission, to promote Affirmative Action in the behalf of minority group persons seeking jobs in these industries. Since then, the grant has been renewed and expanded to include other industries. With the exception of the Construction Study, all other in-depth surveys were funded by private foundations and the Federal Government.

The Commission on Human Rights considers this study on "Minority Employment In The Construction Industries And Its Effect On The Connecticut Economy" to be very valuable at this time because of the following: 1) the blatant exclusion of minority group persons from the building trades, locally and nationally; 2) the beginning of the Model Cities Program which was designed to renew and redevelop areas predominately inhabited by minority groups and the poor (Current practices and policies of contractors and unions tend to exclude involvement of these areas' inhabitants in the redevelopment process.); 3) the dearth of minority group persons being trained and licensed for the building trades in comparison to the number of minority group persons in other industries; 4) the large amount of Federal and State funds being expended on projects which practically exclude minorities in violation of Federal and State laws; 5) the extreme difficulty of minority group persons in obtaining membership in many of the trade unions; and 6) the large job potential which exists for many of the hard-core unemployed.

These are but a few of the reasons for the immediate consideration of the situation which now exists in the construction industry.

In Human Rights, as in other disciplines and fields of endeavors, research can prove to be a valuable tool. A myriad of complex problems surrounding the socio-economic fabric of our present society must be appraised objectively and realistically for constructive solutions. No longer can we afford the luxury of permitting customs, traditions and myths to suffice on such vital issues. Current and future thrusts must entail bold and innovative approaches that will guarantee equality of opportunities, regardless of race, religion, sex, or nationality; and will enhance the democratic process for all citizens.

While this survey of the construction industry does provide informative and documented data on many aspects of the construction industry's operation in Connecticut, it does not, by any means, provide the solution to the problem. The Commission on Human Rights plans to study and analyze these data very thoroughly for action in areas of legislative needs, intergroup and educational programs, affirmative action projects, and the possibility of legal actions.

Arthur L. Green
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H I G H L I G H T S

- The field survey in the summer of 1969 showed that 6.9% of construction workers were blacks. This was an increase over the 4.8% blacks shown in the 1960 census. Over half of the blacks employed in 1969 were in the labor group.

- Principal gains since 1960 were in the labor group, in the brick, stone, and cement mason group and in carpenters. The other occupations showed either little or no gains or declines in the proportion of blacks employed in 1969 over the 1960 census.

- There is little possibility of an increase in the number of blacks in the skilled occupations, except carpentry, for the next five years because of the few number of blacks now enrolled as apprentices for these occupations.

- Family and friends were the main source of interest in attracting workers to construction. This source interested half of the white workers and a quarter of the black workers. Among union apprentices 58% acquired interest through family and friends while among nonunion apprentices 41% were so interested.

- A variety of reasons for the few number of blacks in the skilled building trades were given by on site workers. Among white workers, the most frequent response, 19%, was lack of motivation among the blacks. Among black workers the most frequent response, 34%, was discrimination.

- Thirteen affirmative action programs to bring black youths into the skilled trades have been undertaken by employers and unions in Connecticut. These consist of special training or assistance in entering the apprenticeship programs. The most successful programs have been in carpentry.

- A shortage of skilled construction workers will persist throughout the next decade. The number of workers and amount of activity will fluctuate with economic conditions and the degree of the shortage will vary.

- The Connecticut Economy in terms of the amount of building and road construction was moderately affected by labor shortages. Of 230 project directors responding, 133 or 57.8%, replied that the labor shortages caused no limitation on their total activity, 16, or 7.0% reported a moderate effect, and 81, or 35.2%, reported a definite limitation.

CONNECTICUT BLACKS IN THE CONSTRUCTION TRADES AND EFFECT ON CONNECTICUT ECONOMY

S U M M A R Y

During the past several years there has been a growing interest and protest by black, civil rights, church, government, and other groups over the number of blacks employed in the building trades. This is the result of the following factors:

1. Construction workers are visible.
2. The number and proportion of blacks are low in the skilled construction trades.
3. It is a high paying activity.

A field study of the number of blacks employed in on-site construction was made in the summer of 1969. This revealed that 6.9% of the workers were black which was an advance from the 4.8% proportion as shown in the 1960 census. The gains in the number of black workers was mainly in the labor group, in which more than half of all black workers were employed in the summer of 1969. Substantial but smaller gains were made in the other so-called "dirty" occupations - brick, stone, and cement masons, and among the skilled trades, a substantial increase was made in carpenters.

In the occupations requiring the most training and skills, and also the highest paying - electrician, plumber, steamfitter, sheet metal - the number and proportion of blacks are low and have shown no significant gains in the past ten years. The proportion of blacks is also low in the ironworker occupation.

Little change can be expected in the proportion of blacks in these skilled trades for at least the next five years. The licensing provisions for electrician, plumber, and steamfitter require a five-year apprenticeship. In sheet metal, nearly all new journeymen must also serve a four-year apprenticeship.

The current proportion of blacks in apprenticeship in these occupations is also quite low. Therefore, at least for the next five years no significant increases in the proportion of blacks in these occupations may be expected under the present systems.

The low number of blacks may be accounted for basically by two factors. First, construction apprenticeship and trades are largely family oriented. Youths develop an interest in and knowledge of a trade through family and friends. With few blacks now in these trades, there are few who can pass the interest in and knowledge of the trades on to black youths, or assist them in entering once the desire and interest has been stimulated.

Secondly, these trades require considerable technical and academic knowledge. Technical manuals of standard procedures have been developed for these skilled trades and must be studied for the apprenticeship and licensing procedures. This requires a moderate amount of competency in mathematics and science. Because of their cultural and educational background, many of the blacks are unable to cope with this phase of the entry into the skilled trades.

The study was unable to find any overt cases of discrimination against blacks in the entry process. A number of community action agencies, human rights commissions, and one urban league were visited and asked if they knew of or could identify individual cases of discrimination. No positive responses were received. The Commission on Human Rights and Opportunities did submit a list of sixteen persons who had filed complaints on discrimination in construction during the past five years, seven against employers and nine against labor unions. Of these, seven were satisfactorily adjusted without any hearings, eight were dismissed as without foundation or for lack of evidence, and one is still pending.

While wages in construction are high, the trades are not attractive to or held in high esteem by youth. This is because of their image of the typical construction worker and of the hard physical nature and conditions of work in construction. Only a very small proportion of noncollege bound high school seniors are planning to enter construction, and those that are show interest mainly because of family ties. College bound high school youths showed practically no interest. College students disdain the construction trades even though recognizing that the wages they could earn may be considerably higher than what they will earn upon completion of college.

The total number of on-site construction jobs in Connecticut will most likely be at about the same level in 1980 as it is now. The total amount of building and road construction activity will be at least 50% above present levels but the increase will be accomplished through new techniques, materials, and machinery, rather than through more workers.

While the total number of workers will remain about the same, there will be a shift in the occupational composition. A higher proportion of skilled workers will be required and a lower proportion of laborers, masons, and carpenters. These last three occupations are those in which the proportions of blacks are high or increasing.

A shortage of skilled workers will persist throughout the decade. The number of apprenticeship openings are largely controlled by union members for their respective crafts. Since there are no seniority provisions in construction, the members protect their job security by limiting the number of workers in their craft through apprenticeship openings.

The level of construction activity will not increase evenly throughout the next decade but will fluctuate with general business conditions and other factors. Thus the intensity of the shortage of workers will vary over the period.

I. THE CONNECTICUT ECONOMY

CONNECTICUT LEADS NATION IN PER CAPITA INCOME

The past growth and future expansion of the State's construction industry has and will occur within the framework of the Connecticut economy.

In many aspects the State has the leading economy in the nation. Connecticut residents had, in 1969, the highest per capita and per family income of any state in the nation, $4,537 and $12,100 respectively. This income is not evenly distributed and in the State's four largest cities, 25% of the families have incomes under $5,000 a year.

The economy of the State is characterized by its large manufacturing activity with 39% of its workers employed in factories, the highest proportion in the nation. In defense production, Connecticut leads all other states on a per capita basis, and is the third highest in total output.

The value of production in Connecticut was $7,000,000,000 in 1969, representing almost entirely money brought into the state. The wealth generated by manufacturing has been supplemented by income brought into the state by the sizeable insurance industry and by the 30,000 persons who reside in Connecticut and commute to New York.

The largest long term employment growths have occurred in health services, education, trade, and government. Employment in the largest segment, manufacturing, is marked by wide fluctuations closely following changes in defense contracts to Connecticut firms. The long term growth in manufacturing has been small. A sharp upturn started in 1965 with the fighting in Vietnam and remained high through 1968. A slight falling off occurred in 1969 with larger losses in the early months of 1970. Construction employment had a long term

upward trend through 1957, sagged until 1961 and then turned up reaching a new peak in 1969. From 1956, the last peak economic year prior to the Vietnam escalation, construction employment increased 10.3% while all nonmanufacturing employment rose by 48.2%.

Table I-1 shows employment and percentage change by major group for 1956 and 1970.

The Connecticut manufacturing complex is concentrated in metal working with 75% of its workers employed by firms in this activity. The history of metal working industries is that it has wide cyclical fluctuation, and that as a result economic recession and upswings since World War II have been more pronounced in Connecticut than for the nation as a whole. Within metal working, Connecticut has a large industrial machinery group in which changes in trends usually precede changes in manufacturing as a whole. Thus Connecticut is the bellwether of the national economy.

Construction employment has followed the fluctuations in the state's manufacturing economy. It rose rapidly in the 1955-56 period, fell sharply in the 1958-59 recession, remained level until the escalation of the Vietnam conflict in 1965, and then rose through 1969.

Table I-2 shows annual average employment for construction, manufacturing and total nonmanufacturing for each year 1947 through 1969.

CONNECTICUT HAS SEVERE LABOR SHORTAGES IN SECOND HALF OF THE 1960'S.

The Connecticut labor market during the second half of the 1960's was marked by the shortage of labor, both skilled and unskilled. The number of job seekers fell from 91,000 at the beginning of the decade to 55,000 in 1965. The increase in defense contracts resulted in a further reduction to a low of 39,100 unemployed in

Table I-1
CONNECTICUT
EMPLOYMENT CHANGES
1956-1969
by Major Groups

Industry	Annual Average (in thousands) 1969	1956	Percentage Increase
Total Nonagriculture	1,173.0	913.4	28.4
Manufacturing	470.5	439.4	7.1
Nonmanufacturing	702.5	474.0	48.2
Construction	55.8	50.6	10.3
Transportation	26.1	24.8	5.2
Comm. & Utilities	25.4	21.1	20.4
Trade - Total	214.1	151.4	41.4
Wholesale	46.9	33.6	39.6
Retail	167.2	117.8	41.9
Finances & Real Estate	28.7	18.0	59.4
Insurance	40.1	28.6	40.2
Service	165.7	98.1	68.9
Government	146.5	81.4	80.0

Source: Connecticut Labor Department

Table I-2

CONSTRUCTION, MANUFACTURING, AND TOTAL NONMANUFACTURING EMPLOYEES

ANNUAL AVERAGES
(in thousands)

Year	Construction	Manufacturing	Total Nonmanufacturing
1947	29.7	418.6	355.2
1948	32.7	408.1	367.7
1949	33.6	354.2	375.8
1950	37.8	379.9	386.2
1951	41.6	426.7	402.0
1952	41.6	436.8	410.8
1953	39.9	461.5	418.9
1954	41.3	425.0	435.3
1955	44.9	423.2	451.6
1956	50.6	439.4	474.0
1957	53.0	432.7	489.0
1958	47.1	389.2	486.3
1959	44.6	406.6	493.6
1960	44.6	407.2	509.6
1961	43.7	403.6	520.3
1962	44.9	418.3	531.5
1963	45.7	420.8	548.3
1964	47.5	421.0	569.3
1965	49.4	437.3	594.7
1966	51.0	471.4	621.6
1967	49.6	479.6	648.7
1968	52.4	477.0	684.8
1969	55.8	470.5	702.5

Source: Connecticut Labor Department

1966, from which it increased each year to 51,700 in 1969. From 1966 through 1968 Connecticut had the most severe labor shortage of any state in the nation and this was particularly pronounced in the Hartford and Stamford labor market areas.

There were shortages of professional, technical, and skilled workers in construction as well as in manufacturing and other endeavors.

CONNECTICUT FACTORY WAGES TWELFTH FROM HIGHEST IN NATION

In June 1969 Connecticut factory workers' earnings averaged $137.67 a week, which was twelfth highest in the nation. Average wages in construction during this month were $220.70 a week, highest of any employment group in the state.

II. THE CONSTRUCTION INDUSTRY IN CONNECTICUT

CONSTRUCTION A $1 BILLION ACTIVITY IN CONNECTICUT

Construction in Connecticut in 1969 was close to a $1 billion dollar industry. During 1969 building permits were issued for $845.9 million dollars and road construction contract awards totalled $77.5.

Table II-1 shows the amount authorized by building permits issued by categories and the amount of road construction contracts and town aid for roads awarded for 1969.

Table II-1
CONSTRUCTION AUTHORIZED IN CONNECTICUT
1969

Nature	Authorized Construction Permits or (Dwelling Units)	Amount (Millions of Dollars)
Total	-	$923.4
Building	39,786	845.9
Residential (Units)	(25,593)	338.6
Commercial & Industrial	6,597	349.6
Additions & Alterations	22,363	157.7
Roads & Highways	-	77.5
State Contracts	-	63.8
Town Aid Payments	-	13.7

The Appendix Table I shows these amounts by year from 1959 to date.

Source: Department of Community Affairs

CONSTRUCTION HAS 7,870 FIRMS AND 59,500 WORKERS

In June 1969, there were 7,870 employers who had 60,300 workers in the construction industry. The largest group were special trade contractors 5,100 with 32,300 employees. In the other groups, general building contractors numbered 2,250 with 17,900 employees, and highway and other heavy construction contractors 520 with 10,100 employees. As may be apprised from these figures, the construction firms are generally small in size, with an overall average of 8 employees each.

Table II-2 shows the number of firms and employees by nature of activity in June 1969.

Table II-2
EMPLOYERS AND WORKERS
BY
TYPE OF BUSINESS
June 1969

Business	Number of Firms	Number of Employees
Total	7,870	60,300
General Building Contractors	2,250	17,900
Highway and Other Heavy	520	10,100
Highway	310	7,200
Other heavy (except buildings)	210	2,900
Special Trade Contractors	5,100	32,300
Plumbing and Heating	980	6,800
Painting and Decorating	720	2,600
Electrical Work	590	4,800
Masonry and Plastering	650	3,900
Carpentering & Flooring	550	2,500
Roofing and Sheet Metal	270	1,800
Concrete Work	170	1,600
Water Well Drilling	70	300
Structural Steel, Glazing, etc.	1,080	8,000

Source: Connecticut Labor Department

THE EMPLOYMENT STRUCTURE IN CONSTRUCTION

While this study is concerned with on-site construction workers, many others are employed in professional, managerial, and clerical occupations away from the actual construction scene. In June 1969, the total number employed in the construction industry in Connecticut was 60,300. Employed on site were 45,900 workers or 76.2% of the total. This consisted of 30,300 skilled craftsmen, 6,500 operators and semiskilled workers, and 9,100 laborers.

Table II-3 shows the occupational composition of the 60,300 employed last June.

CONSTRUCTION EMPLOYMENT HIGHLY SEASONAL

Due to weather and custom, construction employment is seasonal. Last year the number of workers reached a peak of 61,000 in July from a low of 46,300 in February. The employment pattern during 1969 was:

Jan.	45,420	April	52,610	July	63,060	Oct.	61,560
Feb.	44,020	May	56,740	Aug.	62,000	Nov.	59,610
March	46,510	June	60,330	Sept.	61,410	Dec.	56,750

The seasonal increase in 1969 from the low in February to the summer peak was 43.3%, only slightly below the seasonal increase of 45.7% ten years earlier in 1959.

Table II-3
STRUCTURE OF EMPLOYMENT
IN
CONNECTICUT CONSTRUCTION
June 1969

Occupation	Number Employed	Percent of Total
Total	60,300	100%
Off-Site Workers	14,400	23.8
Professional	4,000	6.6
Engineers	1,500	2.6
Technicians	1,700	2.7
Other professional	800	1.3
Managers, Owners, Directors	7,000	11.4
Clerical	3,400	5.7
On-Site Workers	45,900	76.2
Skilled Craftsmen	30,300	50.3
Carpenters	7,600	12.6
Bricklayers	2,200	3.6
Cement Finishers	700	1.2
Electricians	2,100	3.5
Excav. Mach. Operators	2,800	4.7
Painters	3,700	6.1
Plasterers	600	1.0
Plumbers & Steam Fitters	2,800	4.6
Roofers	700	1.1
Ironworkers	700	1.1
Sheet Metal Workers	600	1.0
Mechanics	1,400	2.4
Foremen	1,700	2.9
Other skilled	2,700	4.5
Operators & Semi-skilled	6,500	10.8
Truck Drivers	2,700	4.5
Operating Engineers	3,800	6.3
Laborers	9,100	15.2

CONSTRUCTION TRENDS

Construction activity and employment have historically moved irregularly with short and long term trends. They have moved up generally, with some short term declines, since the end of World War II. Employment hit a peak of 53,000 in 1957 from which it dropped until the early 1960's and then picked up reaching a new peak of 55,800 in 1969. Construction volume was considerably higher in 1969 than in 1957 even with the small increase in workers due to productivity increases resulting from a combination of better trained workers, new machines and equipment, new materials, and new techniques.

In short term trends, construction activity and employment have followed business changes. Construction employment dropped during the 58-59 recession and remained level until it rose rapidly with the general business upswing coinciding with the Vietnam fighting. From 1964 to 1969 the number of building and road workers rose from 47,500 to 55,800. Private housing construction fell off sharply during the second half of 1966 and during 1969 due to the lack of housing money. Planned industrial construction in Connecticut reached a peak in 1968 from which it declined rather sharply in 1969. Highway construction awards hit a peak in 1963 due to the interstate highway system and has generally declined since.

THE OUTLOOK

The long term construction activity in Connecticut will depend mainly on population growth. The short term trends will fluctuate with business conditions.

Population growth generally sets the pace for the construction of stores and office buildings as well as for housing needs. Since World War II this state has had the largest population growth of any state

in the entire Northeastern United States. In 1970 Connecticut population reached 3,071,000, a gain of 527,000 or 20.7% since 1960. Part of the increase was due to natural growth, that is, births over deaths, and part due to people moving into the state attracted mainly by its job opportunities. Since the early 1960's there has been a steady decline in the birthrate which is most likely to continue through the 1970's. The number of people moving into the state will depend largely on the number of jobs available. Based on these factors a lower rate of population growth for the next decade may be expected but the number will still be substantial.

Table II-4 shows population by year for Connecticut for 1947 to 1970 and projections to 1975 and 1980.

The Connecticut, and national, economy experienced a nearly uninterrupted growth during the 1960's. This was due to the low level of activity at the start of the decade and the constantly increasing defense procurement awards through 1968. These were cut back sharply in 1969 and the economy started to decline during the second half of the year and continued to fall off at a more rapid pace during the first half of 1970. Business trends will continue to fluctuate with international affairs which are difficult to predict but it appears almost inconceivable that fighting will continue through the entire 1970's.

It is expected that building activity will increase during the next decade but that the increase will be met more by increased productivity and that total employment will be about the same at the end of the decade as at present. The same trends may be expected in road building. During the decade there will be short term fluctuation with periods of excess workers followed by periods of labor shortages. A continuing shortage of workers in the more highly skilled trades may be expected.

Table II-4
POPULATION - CONNECTICUT
1947-1970
PROJECTION TO
1975-1980

Year	Population	Annual Growth
1947	1,932,000	-
1948	1,948,000	16,000
1949	1,980,000	32,000
1950	2,016,000	36,000
1951	2,052,000	36,000
1952	2,106,000	54,000
1953	2,173,000	67,000
1954	2,246,000	73,000
1955	2,298,000	52,000
1956	2,342,000	44,000
1957	2,393,000	51,000
1958	2,456,000	63,000
1959	2,498,000	42,000
1960	2,544,000	46,000
1961	2,604,000	60,000
1962	2,662,000	58,000
1963	2,711,000	49,000
1964	2,775,000	64,000
1965	2,825,000	50,000
1966	2,873,000	48,000
1967	2,929,000	56,000
1968	2,965,000	36,000
1969	3,017,000	52,000
1970	3,071,000	54,000
Projections		
1975	3,320,000	50,000
1980	3,570,000	50,000

Source: 1947-1970 Bureau of Vital Statistics, Connecticut Department of Health
Projection 1975, 1980 by Labor Education Center, University of Connecticut

Technological developments are expected to have a significant effect on the type of construction jobs by 1980 as well as on the number of jobs. An increase in the proportion of off-site workers, particularly professional and technical workers, is expected. Among the skilled jobs, decreases in the proportion of carpenters and painters, and increases in the proportions of electricians, plumbers, ironworkers, mechanics, and sheet metal workers are likely. The proportion of laborers is expected to decline with the introduction of more and newer material moving equipment.

III. EMPLOYMENT BY RACE

BLACK CONSTRUCTION WORKERS COMPRISE 6.9% OF ALL WORKERS ON SITES SURVEYED

In the summer of 1969 the study field staff visited 301 construction sites to obtain data on the number and proportion of blacks employed by occupation, and other information from workers and project directors.

Employed at these sites were 6,580 workers of whom 453 or 6.9% were black. More than half, 58.3%, of the blacks were employed as laborers. In this occupational group, blacks comprised 16.8% of the total number of laborers, the highest proportion in any occupation. Second highest was in the cement mason and finisher occupation, 13.5%. On the sites surveyed, no blacks were employed among the 216 ironworkers, 135 sheet metal workers, and 48 asbestos and insulation workers. The total number of on site workers in Connecticut was 45,900 in June 1969.

Among the higher skilled occupations, 47 or 3.4% of the 1,397 carpenters were blacks, 10 or 1.3% of the plumbers were black, 4 or 0.7% of the electricians were black, and none of the 135 sheet metal workers were black.

Among the 5,318 union workers on sites surveyed, 373 or 7.0% were black. On non-union sites, 80 or 6.3% of the 1,265 employed were black.

Table III-1 shows the employment on sites surveyed by total and black, by occupation, and by union and nonunion status.

PROPORTION OF BLACKS EMPLOYED IN CONSTRUCTION SHOWS INCREASE IN 1969 OVER 1960

The last data for Connecticut prior to this study showing the number of blacks in construction

Table III-1
BLACK EMPLOYMENT IN THE BUILDING TRADES
ON SITE EMPLOYMENT - BY OCCUPATION
SURVEY - SUMMER 1969

Occupation	ALL Total	ALL Blacks Number	ALL Blacks %	UNION Total	UNION Blacks Number	UNION Blacks %	NONUNION Total	NONUNION Blacks Number	NONUNION Blacks %
Total Surveyed	6,580	453	6.9	5,318	373	7.0	1,262	80	6.3
Laborers	1,574	264	16.8	1,301	225	17.3	273	39	14.3
Carpenters	1,397	47	3.4	1,013	42	4.1	384	5	1.3
Plumbers, Steamfitters	772	10	1.3	687	5	0.7	85	5	5.9
Electricians	593	4	0.7	501	4	0.8	92	0	0.0
Equipment Operators	538	30	5.6	497	28	5.6	41	2	4.9
Brick & Stone Masons	515	41	8.0	377	27	7.2	138	14	10.1
Ironworkers	216	0	0.0	209	0	0.0	7	0	0.0
Cement Masons & Finishers	192	26	13.5	150	17	11.3	42	9	21.4
Heavy Truck Drivers	148	12	8.1	129	12	9.3	19	0	0.0
Painters	164	6	3.7	107	5	4.7	57	1	1.8
Sheet Metal Workers	135	0	0.0	126	0	0.0	9	0	0.0
Lathers and Plasterers	110	2	1.8	50	2	4.0	60	0	0.0
Roofers	72	2	2.8	48	2	4.2	24	0	0.0
Asbestos and Insulation	48	0	0.0	41	0	0.0	7	0	0.0
Elevator Constructors	44	3	6.8	40	1	2.5	4	2	50.0
Drainage Workers	36	4	11.1	16	1	6.3	20	3	15.0
Glaziers	26	2	7.7	26	2	7.7	0	0	0.0

occupations was that of the 1960 census. For those construction occupations shown in the 1960 census, a total of 37,738 were employed of whom 1,822 or 4.8% were blacks. For comparable occupations in the current study, the number in the sample was 6,232 of whom 430 or 6.9% were black. In the 1950 census, the proportion of blacks for comparable occupations was 2.4%.

Recognizing that the census methods and timing differ from those of the current study, it may be reasonably inferred that the overall proportion of blacks employed in construction has increased since 1960.

This increase was due almost entirely to increases in three occupational groups - laborers, carpenters, and brick, stone, and cement masons. The proportion of blacks among laborers increased from 12.7% in 1960 to 16.8% in the 1969 sample. The proportion of blacks among carpenters increased from 1.1% to 3.4%, and among brick, stone, and cement masons from 3.9% to 9.5%.

Table III-2 shows the total and the number and proportion of blacks in construction occupations in the 1960 census and in the 1969 sample survey.

ROAD BUILDING EMPLOYS HIGHEST PROPORTION OF BLACKS

By nature of activity, in the sample survey road building had 10.2% blacks among its total work force, the highest of any group. Second highest was 6.8% in dwelling unit construction followed by 6.2% in commercial and industrial. Among dwelling unit activity, multiple unit construction had 7.8% blacks and single homes 4.6%.

Table III-3 shows the proportion of blacks employed in the sample survey by nature of activity and by union and nonunion status.

Table III-2
BLACKS IN THE BUILDING TRADES
PROPORTION OF BLACKS
SELECTED OCCUPATIONS(a)

CENSUS 1960 - SURVEY 1969

	CENSUS April 1960			SURVEY 1969		
	All	Blacks		All	Blacks	
		Number	%		Number	%
Total - Selected Occupations	37,738	1,822	4.8	6,232	430	6.9
Laborers	9,471	1,203	12.7	1,574	264	16.8
Carpenters	11,231	122	1.1	1,397	47	3.4
Plumbers, Steamfitters	3,706	25	0.7	772	10	1.3
Electricians	2,172	19	0.9	593	4	0.7
Equipment Operators	1,070	97	9.1	538	30	5.6
Brick, Stone & Cement Masons	3,124	121	3.9	707	67	9.5
Ironworkers	739	22	3.0	216	0	0.0
Painters and Glaziers	4,751	152	3.2	190	6	3.2
Sheet Metal Workers	855	13	1.5	135	0	0.0
Lathers and Plasterers	619	48	7.8	110	2	1.8

(a) Occupations selected are those in the 1960 Census which have reasonable comparability with those in the sample survey.

Table III-3
BLACK EMPLOYMENT IN THE BUILDING TRADES
ON SITE EMPLOYMENT
BY ACTIVITY

SURVEY - SUMMER 1969

Activity	ALL			UNION			NONUNION		
	Total	Blacks- Number	%	Total	Blacks Number	%	Total	Blacks Number	%
Total Surveyed	6,580	453	6.9	5,318	373	7.0	1,262	80	6.3
Commercial & Industrial	4,260	264	6.2	4,095	254	6.2	165	10	6.1
Road Building	920	94	10.2	827	81	9.8	93	13	14.1
Dwellings	1,403	95	6.8	396	38	9.6	1,007	57	5.7
Multiple Units	946	74	7.8	360	38	10.6	586	36	6.1
Single Homes	457	21	4.6	36	0	0.0	421	21	5.0

IV. THE WORKER SURVEY

CONSTRUCTION WORKERS INTERVIEWED

As part of the construction site visiting program, the field staff interviewed 584 construction workers. Among other questions the following were asked:

1. How did you become interested in your occupation?
2. Did you receive formal apprenticeship training? (If yes, describe.) If not, how did you learn your occupation?
3. Some people say there are too few Negroes in construction work. Why do you think this is so?
4. How were you treated when you first came on the job?

FAMILY OR FRIENDS INTERESTED A HIGH PROPORTION OF WHITES IN CONSTRUCTION

About half of the 478 white workers interviewed were attracted to or became interested in construction trades through family members or friends while about one-quarter of the 106 black workers interviewed reported this as a source of interest.

Among white union members, 154, or 49.4% of the 312 interviewed, became interested through these sources while among nonunion members 84, or 50.6% of the 166 interviewed did. School was cited as the source of interest by 30 union and 14 nonunion white workers. "Other" sources were cited by 128 union and 68 nonunion workers. This included such replies as "needed a job," "money," "like to work with my hands," "military service," and "don't know."

Among black union workers 17, or 22.7%, of the 75 interviewed reported family or friends as a source of interest. Among black nonunion workers 9, or 29.0%, of the 31 interviewed, reported this as the source of their interest.

While age data was not collected, it was observed that the younger workers had a higher proportion who found interest in the trades through family and friends than did older workers.

Table IV-1 shows the source of interest among construction workers by black and white and by union and nonunion members.

Table IV-1
HOW WORKERS BECAME INTERESTED IN OCCUPATIONS
Does Not Include Apprentices

Source of Interest	W H I T E		B L A C K	
	Union	Nonunion	Union	Nonunion
Total Interviewed	312	166	75	31
Family	129	62	14	8
Friend	25	22	3	1
School	30	14	4	0
Other	128	68	54	22
% Family or Friend	49.4	50.6	22.7	29.0

This data by occupational detail is shown in Appendix Table II.

FORMAL APPRENTICESHIP TRAINING MOST FREQUENT AMONG WHITE UNION MEMBERS

Among the 252 white union members in apprenticeable occupations who were interviewed, 136 or 54.0%, had been through formal apprenticeship programs. Of the 125 white nonunion members 18 or 14.4% had such formal training.

Among the 32 black union members, 11 or 34.4% had been through formal apprenticeship programs. Of the 19 black nonunion members interviewed, 1 or 5.3% had such formal training.

In general, among the younger workers, a higher proportion had been through apprenticeship training than among older workers.

Table IV-2 shows the number and proportion of workers in apprenticeable occupations who have been through apprenticeship programs by blacks and whites, and by union and nonunion status.

This data by occupational detail are shown in Appendix tables III and IV.

WHITES GIVE LACK OF MOTIVATION, BLACKS STATE DISCRIMINATION AS LEADING CAUSE FOR FEW BLACKS IN SKILLED BUILDING TRADES

In the on-site interview with 584 construction workers, the question was asked, "Some people say there are too few Negroes in construction work. Why do you feel this is so?" Among the 478 whites interviewed, the largest number, 90 or 18.8%, stated lack of motivation was the principal reason. Discrimination was stated as the reason by 28 or 5.9% while 56 or 11.7% said that there were not few blacks. Not answering or stating that they did not know were 138 or 28.9% of the whites interviewed. Under motivation were such replies as, "they are too lazy," "prefer welfare payments," "don't want to better themselves," "don't

Table IV-2
NATURE OF TRAINING FOR APPRENTICEABLE OCCUPATIONS

Nature of Training	WHITE		BLACK	
	Union	Nonunion	Union	Nonunion
All Interviewed	252	125	32	19
Formal Apprenticeship(a)	136	18	11	1
Informal On-the-Job Training(b)	116	107	21	18
% Formal	54.0%	14.4%	34.4%	5.3%

(a) Formal apprenticeship programs are those approved by the Apprentice Training Division of the Connecticut Labor Department.

(b) Informal on-the-job training includes programs by employers but not registered, individual instruction to workers, and skills acquired by workers who learned the trade by working and watching others.

try to get in," "not interested in this type of work," "don't like the work."

Among the 106 blacks interviewed, the largest number, 36 or 34.0%, stated that discrimination was the principal reason. Lack of motivation was cited by 13 or 12.3%, while three or 2.8% said that there were not few. Not answering or stating that they did not know were 23, or 21.7%, of the blacks.

Table IV-3 shows the number of workers citing each reason by white and black workers.

Table IV-3
WHY FEW BLACKS IN SKILLED BUILDING TRADES
RESPONSES BY

Stated Reason for few Blacks	W H I T E Number	%	B L A C K Number	%
All Interviewed	478	100	106	100
Work is too hard	45	9.4	6	5.7
Apprentice Wages too low	29	6.1	5	4.7
Motivation	90	18.8	13	12.3
Discrimination	28	5.9	36	34.0
Lack Training & Skill	38	7.9	9	8.5
Lack Ability to Learn	10	2.1	1	1.0
Not Few	56	11.7	3	2.8
Other Reasons	44	9.2	10	9.4
No Answer or Don't Know	138	28.9	23	21.7

TREATMENT ON ENTRY TO JOB

The workers were asked what type of on-the-job treatment they received when they first entered their current occupation.

Answering this question were 282 workers. Among the 220 whites responding, 155 or 70.5% said that they felt welcomed. Reporting mild treatment were 34 or 15.5% and rough treatment were 31 or 14.0%.

Among the 62 blacks responding, 33 or 53.2% said they felt welcome, 20 or 32.3% said they received mild treatment, and 9 or 14.5% said that they received rough treatment.

Table IV-4 shows the distribution of the workers by the nature of the treatment they received, by black and white workers.

Table IV-4
TREATMENT ON ENTRY TO JOB
RESPONSES BY

	WHITE		BLACK	
	Number	%	Number	%
Total	220	100	62	100
Welcome	155	70.5	33	53.2
Mild	34	15.5	20	32.3
Rough	31	14.0	9	14.5

V. THE PROJECT DIRECTORS SURVEY

EMPLOYERS QUESTIONED ON THEIR ACTIVITIES AND ATTITUDES

In visiting project sites for the purpose of determining the number of black workers by occupation, the project directors were first contacted to obtain permission to enter the construction site and to talk with workers. They were also asked:

a. What are the sources or methods you use to recruit workers?

b. Is your total activity limited by manpower shortages?

c. Is the development of new construction techniques including pre-fab materials affecting the number of men you employ?

d. How can more and better construction workers be prepared for the future?

e. Why do you think there are so few blacks in your industry?

SOURCE OF WORKERS

The union business agent was reported as the prime source of workers by 126 of the 134 project directors interviewed on union building projects.

Among the nonunion projects, the source of workers was more diversified. Walk-ins were reported as the main source by 31 of the 96 nonunion project directors, business associates by 25, and friends of workers by 15. Reporting no employees were twelve project directors who stated that they worked alone or used subcontractors exclusively for their work.

Table V-1 shows the source of worker supply by primary source by union and nonunion projects.

Table V-1
SOURCE OF THE SUPPLY OF WORKERS

Prime Source of Workers	Union	Nonunion
Total Interviewed	134	96
Unions	126	0
Walk-ins	4	31
Business Associates	0	25
Friends of Workers	1	15
State Employment Service	1	7
Advertisements	2	6
No employees (work alone or solely through subcontractors)	0	12

MORE TRAINING OPPORTUNITIES SEEN AS BEST METHOD TO PREPARE MORE AND BETTER CONSTRUCTION WORKERS

The most frequent answer by project directors as to how more and better construction workers can be prepared for the future was to provide more apprenticeship or on-the-job training opportunities. Of the 230 directors interviewed, 91 or 39.6%, gave this reply. The proportionate number of responses for more training opportunities was higher among directors on union projects with 64, or 47.8%, so stating. Among directors on nonunion projects, 27, or 28.1%, listed more training as the best method.

Second highest response was "better motivation" with 36, or 15.6%, so replying. Among the 29 "other" answers were such ideas as "allow boys to work before 18 years of age," "more government training programs," "make jobs available on a steady basis," "more promotion to glamorize it," "schools should stress non-college jobs."

Table V-2 shows the responses of the directors to the question, "How can more and better construction workers be prepared for the future," by union and nonunion projects.

Table V-2
PROJECT DIRECTORS RESPONSE TO
HOW CAN MORE AND BETTER CONSTRUCTION WORKERS BE PREPARED
FOR THE FUTURE

	Total		Union Projects		Nonunion Projects	
	Number	%	Number	%	Number	%
All Directors	230	100	134	100	96	100
More Apprenticeship or On-the-Job Training	91	39.6	64	47.8	27	28.1
More Vocational Education	26	11.3	13	9.7	13	13.5
Better Motivation	36	15.6	17	12.7	19	19.8
Other	29	12.6	15	11.2	14	14.6
No Answer or Don't Know	48	20.9	25	18.6	23	24.0

NEW TECHNIQUES, INCLUDING PRE-FAB MATERIALS, NOT EXPECTED TO RELIEVE MANPOWER NEEDS

The project directors were asked, Is the development of new construction techniques, including pre-fab materials, affecting the number of men you employ? Do you expect it to in the future?

Of the 230 who responded, 199, or 86.5% stated that they expected little or no effect on manpower needs as a result of such techniques. This opinion was shared by all groups with the highest proportion 93.9%, or 31 of 32 among road builders.

Table V-3 shows the number and proportion of each activity group by their outlook on the effect of new techniques.

Table V-3
THE EFFECT OF MANPOWER
ON
NEW CONSTRUCTION TECHNIQUES, INCLUDING PRE-FABRICATED MATERIALS
RESPONSES BY PROJECT DIRECTORS

Type of Activity	Total	Less Future Manpower Need	No Effect	
			Number	%
All Responses	230	31	199	86.5
Commercial & Industrial	107	21	86	80.4
Multiple Dwelling	40	5	35	87.5
Single Dwelling	51	4	47	92.2
Road Builders	32	1	31	96.9

LACK OF MOTIVATION MOST FREQUENT ANSWER FOR FEW BLACKS

Lack of motivation was cited by 88, or 38.3%, of the project directors as the cause for so few blacks in the building trades, the largest number for any reason. Discrimination was cited by 33, or 14.3% of the total. Third largest 21 or 9.1% was that the work was too hard.

The project directors interviewed were all whites.

Table V-4 shows the distribution of directors by reason stated for so few blacks by union and non-union projects.

Table V-4
PROJECT DIRECTORS RESPONSES TO
WHY FEW BLACK WORKERS

Stated Reason for Few Blacks	Total		Union Project		Nonunion Project	
	Number	%	Number	%	Number	%
All Interviewed	230	100	134	100	96	100
Work Too Hard	21	9.1	11	8.2	10	10.4
Apprentice Wages Are Too Low	11	4.8	9	6.7	2	2.1
Lack of Motivation	88	38.3	52	38.8	36	37.5
Discrimination	33	14.3	20	14.9	13	13.5
Lack Training or Skill	17	7.4	10	7.5	7	7.3
Lack Ability to Learn	4	1.7	1	0.7	3	3.1
Not Few	13	5.7	6	4.5	7	7.3
Other Reasons	7	3.0	4	3.0	3	3.1
No Answer or Don't Know	36	15.7	21	15.7	15	15.7

MOST EMPLOYERS REPORT NO OVERALL ACTIVITY LIMIT DUE TO WORKER SHORTAGE

A diversity of answers was received to the question, "Is your total activity limited by manpower shortages?

The purpose of the question was to determine if the use or entry of relatively few minority group workers has affected the economy of Connecticut.

Reporting no limitation because of manpower shortages were 133 or 57.8% of the 230 replies. A number so reporting stated that the labor shortage required working more overtime hours or longer in the year than planned but that their total activity was unchanged.

Stating that the labor shortage had a definite effect on their total construction activity were 81, or 35.2% of the total project directors, while 16, or 7.0%, reported a moderate effect.

Table V-5 shows the responses as to activity limit due to labor shortages by type of construction.

Table V-5
CONSTRUCTION ACTIVITY LIMITED
DUE TO MANPOWER SHORTAGE

Activity Limit	CONSTRUCTION TYPE Total	Commercial & Indus.	Multiple Dwelling	Single Dwelling	Road Builders
Total Responses	230	107	40	51	32
Definite	81	44	14	17	6
Moderate	16	8	4	0	4
None	133	55	22	34	22

VI. THE UNIONS

CONSTRUCTION UNIONS LOCALS NUMBER 120 IN CONNECTICUT

Construction unions are among the oldest in the labor movement. Their strength and stability arises from the skills required for their crafts, the limited number of persons possessing such skills, and the common interests of its members. Due to the shortage of skilled construction workers since the 1930's, work stoppages on labor-management disputes since then have generally been successful and seldom challenged by employers.

The unions operate on a local basis and with only a very few exceptions are affiliated with international unions in their crafts. At the national, state, and the larger metropolitan areas, these unions belong to general building trades councils. The international unions generally prescribe the procedure for the admittance of new members to the union.

The referral of union members to jobs is handled by the business agent who also plays a major role in contract negotiations with employers. The business agent is elected by and must be responsive to the wishes of the members. Replacement of business agents in the building trades is not uncommon.

The hourly wages in the unionized building trades are among the highest of any skilled trades. Annual earnings are diminished by weather and other seasonal factors.

In Connecticut there are 120 active locals of 17 international unions as shown below:

International Union	Number of Locals in Conn.
Asbestos Workers	1
Boilermakers	1
Bricklayers	13
Carpenters	29

International Union	Number of Locals in Conn.
Electrical Workers	7
Elevator Constructors	1
Operating Engineers	1
Glaziers	2
Ironworkers	2
Laborers	15
Lathers	6
Marble Polishers	1
Painters	19
Plumbers & Steamfitters	17
Roofers	2
Sheet Metal Workers	2
Slate, Metal and Terrace Helpers	1

In the summer of 1969, about 32,000 of the 43,800 on-site construction workers were on union projects. Approximately 80% of construction workers are members of labor organizations, but the degree of membership varies among skills, localities, and nature of construction. In commercial and industrial building, and in road construction, the degree of unionization is high. In home building, a large proportion of the work is done by nonunion workers.

UNION MEMBERSHIP REQUIREMENTS

Most union locals require a majority vote of its current members for the admittance of a new member. The qualification for membership in the local union bylaws almost always refer to membership qualifications in the constitution of its international unions.

Apprentices who complete union programs and obtain licenses where required are usually accepted into the union as journeymen as a matter of course.

In the laborers union, which has no apprenticeship requirement, the business agent will seek out new workers on a union project and request that they join.

Workers who have learned their trade in nonunion projects or in work in other parts of the country or in foreign lands may apply for membership in a local union. The union may allow such persons to work under a special permit or may accept them as full members. The acceptance of permit workers or new members depends largely on the supply and demand situation at the time.

The membership qualifications as stated in the constitutions of thirteen international unions are shown in Table VI-1.

UNIONS REPORT 6.3% OF MEMBERSHIP ARE BLACKS

During the summer of 1969, the field staff visited 55 locals of twelve different international unions to obtain data on the proportion of blacks among their membership.

These 55 unions had a total membership of 18,532 and reported that they had 1,174 blacks or 6.3% of the total. The union with the highest number and proportions of blacks were the laborers with 685 or 21.2% of their total membership of 3,240. Carpenters reported 318 blacks or 4.5% of their membership. Other unions reporting a relatively high proportion of blacks were roofers, 5.5%, lathers, 5.2%, and bricklayers 5.1%.

Table VI-2 shows the black and total membership for the unions reporting, and the proportion of blacks among the unions and among workers in the sample survey.

Table VI-1
INTERNATIONAL UNION CONSTITUTIONS
MEMBERSHIP QUALIFICATIONS

Union	Moral Character	Citizenship	Experience	Sponsorship	Residence	Entrance Procedures	Other
Boilermakers	nonsubversive or communist		at work				no discrimination on basis of race, color; minimum working age
Bricklayers		Yes	competency; able to command existing wages	two vouchers	in local jurisdiction	Locals judge of qualifications	60 day limit between application and entrance
Carpenters	good moral character	Yes	competent mechanic; able to command wages	two vouchers	in local jurisdiction	investigation of applicant; vote of membership	minimum age: 17; 4-week limit for applicant to appear for vote
Elec.Wrkrs.	good character				in local jurisdiction	Exam,if local requires; Application Committee vote of membership obedience pledge	minimum age: 16; 1-month limit between application and entry
Elevator Constructors						investigation of applicant;obedience pledge	minimum age: 18 education: H.S. or equiv.
Ironworkers	good moral character, not Communist,Nazi, Fascist or opposed to union goals		practical workman; competent to demand standard wages				
Laborers	nonsubversive not opposed to union		working			obedience pledg	
Operative Engineers	not opposed to organized labor		engaged at the craft		employment in local jurisdiction		

Table VI-1
INTERNATIONAL UNION CONSTITUTIONS
MEMBERSHIP QUALIFICATIONS

Union	Moral Character	Citizen-ship	Experience	Sponsor-ship	Residence	Entrance Procedures	Other
Painters & Glaziers	nonsubversive not communist, fascist		3 years in trade able to command minimum wage rate			committee of 3 to investigate character, competency, experience, health; scrutiny by membership; majority vote of membership	
Plasterers & Lathers	nonsubversive not communist, fascist		2 years in trade skilled and competent mechanic			demonstrate ability to examining board	no discrimination on basis of race, color
Plumbers & Pipe Fitters	good moral character		5 years actual practical working experience	vouchers from employers		test before exam committee; oath of obligation	
Roofers	good moral character; nonsubversive	Yes	employed at the craft			pass local exam, if required	
Sheet Metal Workers	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Table VI-2
UNION MEMBERSHIP
BY RACE
JOURNEYMEN ONLY

Unions	Journeymen Membership Total	Blacks Number	Blacks %	% of Blacks Sample Survey Union Workers
Total in Unions Reporting	18,532	1,174	6.3	7.0
Carpenters	7,031	318	4.5	4.1
Laborers	3,240	685	21.2	17.3
Bricklayers	1,830	93	5.1	7.2
Plumbers	1,727	8	0.5	0.7
Sheet Metal	1,245	9	0.7	0.0
Electricians	957	10	1.0	0.8
Ironworkers	990	4	0.4	0.0
Painters	513	12	2.3	4.7
Roofers	456	25	5.5	4.2
Glaziers	230	5	2.2	7.7
Asbestos Workers	217	0	0.0	0.0
Latherers	96	5	5.2	4.0

VII. THE EMPLOYER ORGANIZATIONS

TRADE ASSOCIATIONS PROMOTE WELFARE OF 7,870 CONSTRUCTION EMPLOYERS

Construction employers in Connecticut totalled 7,870 in June 1969, most of whom are small with average employment of eight.

The contractors have formed trade associations to promote their interests and handle problems as a group which would be most difficult to do as individuals. The functions carried out by these associations differ from group to group and include, although not necessarily all in a single organization, the following:

a. Labor contract negotiations

b. Labor relations

c. Manpower procurement

d. Dissemination of information on:

    a. Government rules and regulations

    b. New techniques, materials, equipment

    c. Safety practices

    d. Equal employment opportunities

    e. Contract opportunities

e. Legislative lobbying

f. Public relations

g. Relations with architects, government agencies, and other groups

The number and type of construction employer associations operating in Connecticut are:

Trade	Number
Road Builders	2
General Contractors	12
Home Builders Assn.	4
Boilermakers	1
Electrical	7
Elevator	1
Insulations	1
Plumbing, Pipefitting, Steamfitting	11
Roofing	2
Sheet Metal	2

VIII. LABOR MANAGEMENT CONTRACTS

HIRING PROVISIONS IN LABOR MANAGEMENT CONTRACTS

The basic provision in labor management contracts in construction is the requirement that all persons employed in the craft be union members.

Contracts are generally made between a union and a contractor association, rather than with individual employers because of the large number of small contractors. Where employers are not members of the bargaining association, the union usually has a packaged contract similar to that made with associations.

An analysis was made of 64 such contracts to determine the significant clauses affecting employment. Of these 50 contained clauses requiring the exclusive employment of union members. Since this is by itself a "closed shop" which is forbidden by the Taft-Hartley Act, the contracts also have a clause permitting the employer to hire anyone regardless of union affiliation but requiring that a new nonunion employee join the union within a specified number of days. Eight days is specified in 28 contracts, seven days in 10, and 30 days in 4. This then is a "union shop" which is permitted under the Taft-Hartley Act.

As a matter of practice in the skilled trades, all employees hired by employers on union projects are union members. Employer association directors and project directors stated that if they exercised the option to hire without regard to union membership, they would find their supply of current union workers dwindle and the stream of new workers cut off and thus be without a work force. The unions have seldom been tested with the necessity of granting membership to a worker under these clauses.

A few contracts specify the qualifications which workers must have. In contracts covering plumbers, four of the seven state that journeymen must have 5 years experience, be licensed, and must be qualified. The contract covering asbestos workers requires 4 years experience. Nothing is mentioned concerning qualifications in the other 59 contracts analyzed.

The right of an employer to reject a worker referred by the union is specified in 9 of the 64 contracts. Five of these are in the laborers union contracts, two in lathers, one in a glaziers contract, and one in a carpenters contract with road builders.

The contracts generally call for nonunion members to join the concerned union within a specified number of days. Denial of membership by a union would, therefore, require the employer to discharge the worker, except for special provisions in 18 of these contracts. These provisions state that where the failure to join the union is due to denial of membership by the union, the employer may continue to employ the worker. Seven of these clauses are in carpenters contracts, five in laborers contracts, two in plumbers contracts, and one each in roofers, operating engineers, elevator constructors, and glaziers contracts.

Discrimination due to race, religion, or national origin, in various combinations, is specifically barred in 23 contracts. Employer and union discrimination are jointly barred in 14 contracts, employer discrimination alone barred in seven contracts, and union discrimination alone barred in two contracts.

Affirmative action programs by both employers and unions are encouraged by clauses in 23 of the contracts analyzed. The clauses refer to employer or union or both. In essence they prohibit discrimination

on the basis of race or color and in some discrimination by the employer on account of unionism. Some require the union to participate and cooperate in affirmative action plans of the employer.

A listing of typical nondiscrimination clauses is shown in Appendix B.

Apprenticeship clauses appear in 25 contracts. The pertinent feature of such clauses is the setting of the ratio of apprentices to journeymen. The specific ratios appear in 20 of the contracts while five state that the ratio will be that set by the joint apprenticeship council.

The number of selected clauses in labor management contracts are shown in Table VIII-1.

The specific ratios in the 20 contracts are listed by occupation in Appendix C.

Table VIII-1
LABOR MANAGEMENT CONTRACTS
NUMBER CONTAINING SELECTED CLAUSES

Occupation	Total Analyzed	UNION MEMBERSHIP Required for Employment	UNION MEMBERSHIP Must Join Within 7 or 8 days	UNION MEMBERSHIP Must Join Within 30 days	DENIAL OF ENTRANCE TO UNION NOT CAUSE FOR DISMISSAL	NONDISCRIMINATION[a] Both Employer & Union	NONDISCRIMINATION[a] Employer Only	NONDISCRIMINATION[a] Union Only
All Contracts Analyzed	64	50	38	4	18	14	7	2
Asbestos	1	1	0	0	0	0	0	0
Boilermakers	1	1	0	0	0	0	0	0
Bricklayers	12	11	10	1	0	2	5	0
Carpenters	14	14	13	0	7	6	0	0
Electricians	3	2	1	1	0	0	0	0
Elevator Constructors	1	1	0	1	1	0	0	0
Glaziers	1	1	1	0	1	1	0	0
Ironworkers	2	0	0	0	0	2	0	0
Lathers	2	0	0	0	0	0	0	1
Laborers	6	6	6	0	5	0	0	0
Operating Engineers	1	1	1	0	1	1	0	0
Painters	7	1	0	0	0	0	1	0
Plumbers	7	7	3	1	2	2	0	1
Roofers	3	2	1	0	1	0	0	
Sheet Metal Workers	2	2	2	0	0	0	0	0
Steamfitters	1	0	0	0	0	0	1	0

(a) Nondiscrimination clauses refer to race, religion, and national origin in various combinations.

IX. THE APPRENTICE TRAINING SYSTEM

NUMBER OF BLACKS IN APPRENTICESHIP PROGRAMS WILL DETERMINE THE FUTURE NUMBER OF BLACK JOURNEYMEN

The future racial composition of journeymen in the skilled trades will be determined by the racial mix of youths now in or who will enter and complete apprenticeship programs.

The proportions of apprentices who are black are generally higher than the proportions of black journeymen in specific occupations. The small numbers involved and the greater than average dropout rate expected among black apprentices make it unlikely that there will be any significant changes in the proportion of blacks in the skilled trades for the next five years with the exceptions of carpenters and roofers.

APPRENTICESHIP INCLUDES ON THE JOB AND CLASSROOM TRAINING

Apprenticeship is the accepted method of training youths to become journeymen in skilled construction trades. It consists of on the job training supplemented by classroom work in the evenings at the technical schools. The programs run from a period of from three to five years. In March 1970 registered in apprentice training programs in construction in Connecticut were 2,750 youths.

Table IX-1 shows the number of apprentices registered and the years of training required by occupation.

In union apprenticeship programs, youths are paid a percentage of journeymen's wages, starting at around 50% or 55% and increasing each six months until the full journeyman's wage is reached at completion. In nonunion programs the wages during the learning period are flexible and determined by the individual employer. About 4 out of 5 of the apprentices are in union programs.

Table IX-1
APPRENTICES REGISTERED IN CONSTRUCTION OCCUPATIONS
CONNECTICUT - MARCH, 1970

Occupation	Years Training Required	Number Registered
Total	-	2,750
Bricklayer-Mason	3	150
Carpenter	4	614
Electrician	5	704
Glazier	3	26
Ironworker	4	132
Lather	3	14
Millman-Millwright	4	26
Painter	3	45
Plumber-Steamfitter	5	678
Roofer	3	58
Sheet Metal	4	303

Source: Connecticut Labor Department

CONNECTICUT A LEADER IN APPRENTICESHIP

Connecticut has played a key role in the development of apprenticeship training. A Connecticut congressman, William Fitzgerald, introduced an act, which now bears his name, directing the setting of standards for and the encouragement of apprenticeship on a national basis, which was passed in 1937. In 1938, Connecticut established by executive order of the Governor, the Connecticut State Apprenticeship Council, and the Apprentice Training Division within the State Labor Department, one of the first states to officially encourage and set standards for apprenticeship. Connecticut now has and has had for many years the highest proportion of skilled workers in its labor force of any state.

Apprenticeship is the oldest form of training and was initially a method by which a father handed his skills down to his sons. This evolved into a system whereby youths were indentured or bonded to journeymen to learn trades. Federal and state legislation now provide for apprenticeship councils to regulate the relationship between a trainee and the journeyman.

ENTERING APPRENTICESHIP - THE PROCESS

The entry into a union program, which comprises the vast majority of apprenticeships, is quite different from entry into a nonunion program.

The entrance process for union programs may be broken down into four steps:

a. Desire or interest

b. Application for admission

c. Tests and interviews

d. Acceptance

The interest or desire for entry into any occupation is largely stimulated by family economic status, influence and activity. This is also true for construction occupations. Interviews with both journeymen and apprentices revealed that the most frequent source of interest in their occupation was the family, with friends being the second largest source. Since there are relatively few blacks now in the skilled trades, less desire will be transmitted to blacks from these sources.

To compensate for the lack of this source, interest will have to be instilled through the schools, community action groups, public agencies, and others, if the ratios of blacks in these programs are to increase. Acting adversely against interest among black youth is the feeling among many that certain occupations are "white" and that it would be like "butting your head against a stone wall" to get in.

Another family related trend is the growing tendency and desire among journeymen to have their sons go on to college. With the increased number of college opportunities and increased earnings of skilled craftsmen, the number of children of white construction workers who go into construction may diminish and thus open more opportunities to black youths.

At the same time there is also a desire among blacks to have their children go on to college. A frequent response as to the few number of blacks in the skilled building trades was that the blacks who could pass the tests and perform the work required in the skilled occupations are given scholarships and other inducements to go to college.

560 APPRENTICESHIP OPENINGS IN 1969

The number of openings in the programs are set by each joint apprenticeship council for the occupation

and area over which it has jurisdiction. The councils consist of three contractor employers and three union representatives. Usually the employers prefer a greater number of apprentice openings while the unions favor a more limited number. The councils also set the qualification for acceptance into the program which may include age, education, testing, residence, and physical condition.

Letters announcing these openings are issued by the chief of the state apprenticeship training division and are sent to the local offices of the state employment service, the apprentice information centers, schools, and in recent years to community action agencies, the urban league, churches, and other groups working with disadvantaged youths. One announcement of apprentice openings is usually made each year by each council.

During 1969, the State Director of Apprentice Training issued 46 announcements covering 560 apprenticeship openings. These letters state the occupation, area, time and place where application may be made, age limits, number of openings, educational and testing requirements, and residence limits.

Table IX-2 shows the number and significant provisions of apprenticeship announcements made during 1969, by occupation.

While the apprenticeship provisions are established by the joint apprenticeship councils, they must conform to the requirements in the constitutions of the international union for the trade.

Table IX-3 shows the significant provision on apprenticeship in the constitutions of the international unions.

APPLICATION FOR APPRENTICESHIP ENTRY USUALLY MADE TO UNION BUSINESS AGENT

Having an interest or desire to enter an apprenticeship program, the youngster will generally

Table IX-2
APPRENTICE APPLICATION ANNOUNCEMENTS
CALENDAR 1969

Occupation	Announcement of Openings During Year: Councils	Announcement of Openings During Year: Number of Openings	Age Limits: Ages	Age Limits: Freq	Veterans Age Extension Mentioned	Education Requirements	Education Requirements: Freq	Aptitude Test: Agency	Aptitude Test: Freq	Residency Requirements: Jurisdiction	Residency Requirements: Freq
Electrician	9	110	18-22 18-24	1 8	5 announcements	High Sch. or equiv.	9	State Emp. Service	9	local 1 yr.local 18 mo.local 2 yr.local	4 2 1 1
Carpenter	12	160	17-27 17-28	2 10	5 announcements	no requir. 8th grade 10th grade H.S.or equiv.	2 1 6 3	State Emp. Service Demonstrate Mech.Ability	9 2	1 yr.local	2
Sheet Metal	2	25	18-23	2	not mentioned	not mentioned		State Emp. Service	2	not mentioned	
Roofer	1	15	18-35	1	not mentioned	not mentioned		not mentioned		not mentioned	
Glazier	1	15	18-26	1	not mentioned	10th grade	1	State Emp. Service	1	local	1
Masons	5	40	17-22 17-24 17-26 17-27	1 1 1 2	not mentioned	not mentioned		State Emp. Service	5	local district	1
Painters, Decoraters, Paper Hangers	4	65	16-26 18-24 18-26	1 1 2	not mentioned	8th grade 9th grade not mentioned	2 1 1	State Emp. Service	2	not mentioned	
Ironworker	1	20	18-26	1	not mentioned	High School or equiv.		"as designated"		not mentioned	

Table IX-2
APPRENTICE APPLICATION ANNOUNCEMENTS
CALENDAR 1969

Occupation	Announcement of Openings During Year: Councils	Number of Openings	Age Limits: Ages	Freq	Veterans Age Extension Mentioned	Education Requirements	Freq	Aptitude Test Agency	Freq	Residency Requirements Jurisdiction	Fre
Plumber and Steamfitter	11	110	16-25	4	4 announcements	High School or equiv.	11	State Emp. Service	11	local	6
			17-25	1						1 yr.local	2
			18-23	2						18 mo. local	1
			18-25	1						3 yr.local	1
			18-26	1							
			Not over 30	2							

Table IX-3
APPRENTICE REQUIREMENTS OF INTERNATIONAL UNION CONSTITUTIONS

Union	Age	Term of Apprenticeship	Apprentice-Journeyman Ratio	Moral Character	Other
Boilermakers					Apprentice program developed by collective bargaining agreements, approved by international union.
Bricklayers		3 - 4 years determined by local			Locals regulate own laws, approved by intl. union. One year technical night school or approved home-study course.
Carpenters	17-24	4 years	1:2 or local determines	good moral character	Local sets up examining committee
Electrical Workers					Local has power to adopt or subscribe to an appren. program according to local conditions.
Ironworkers	18-30	local decides			
Operating Engineers					Local established committee to develop program.
Painters & Glaziers	26 maximum	3 years	determined by local; shop with 8 journeymen must take 1 apprentice		Apprentice must comply with international constitution.
Plasterers & Lathers	16-26 (except for veterans)		1 to each local - 1:5		Local sets up JAC.
Plumbers & Pipe Fitters		5 years		sound moral character	App. agree to learn all aspects of trade App. agree to related training App. agree to study U.A.Training System

proceed along one of two courses. The first may be thought of as the "insider" approach where the youth has a family member or friend already in the union. In affirmative action programs for disadvantaged youths the "insider" approach is often used. The second may be thought of as the "outsider" approach in which the youth must make all approaches and actions on his own.

There is considerable variation within the "insider" approach by individuals and by unions. Common to all is encouragement and information. Some unions adhere rigidly to their established procedure while others shortcut or eliminate certain steps. The inside union member helps with forms and paper work. In some cases one or more of the steps of application, testing, and interviewing are bypassed and the apprentice applicant may be placed directly on a job. Where steps are adhered to the "insider" feels more at ease and usually scores better on the oral interviews.

In the "outsider" approach a youth must first become aware of the apprenticeship process in general and an apprenticeship opening specifically. He may learn of these from the Connecticut State Employment Service in the normal job-seeking process, from the Apprentice Information Centers in New Haven and Bridgeport, or from the Urban League, community action groups, church and other organizations which now receive announcements of apprenticeship openings.

Having this knowledge, the next step is to make application for admittance with the union business agent or in a few cases with the secretary of the joint apprenticeship council. Many of the business agents or secretaries are available to accept applications for only an hour or two a day. While this presents little problem to many, it does to disadvantaged youths not having job discipline. This potential problem may be compensated for in the affirmative action programs.

The application may or may not be accepted by the business agent or secretary, or the youth may be requested to bring back additional data such as a high school certificate, transcript of grades, and a health examination report.

The applicant is usually then advised to take an aptitude test at the local employment service office. Norms have been established for the tests which are used to indicate whether or not an individual is likely to succeed in a specific apprentice program. The results of the tests are reported to the joint apprenticeship council in the form of a list indicating those who passed - scored higher than the norm - and those who did not. Neither the actual score nor the rank is reported.

THE INTERVIEW

Based upon the results of the aptitude test, applicants may be asked to appear before the local council for a personal interview or may be advised that their test results indicate that they would not successfully complete the apprenticeship program. In some cases, particularly where there is a shortage of applicants to meet openings, little attention is paid to the tests and youths who have scored below the norm are called in for an interview.

The interview procedure varies considerably between local councils and between occupations. In most cases it is used to evaluate the work and personal potential of the applicant. Questions are asked about the applicant's work history, desire to become a craftsman, probability of staying with the program and knowledge of the trade. Information on the specifics of the training program such as wage rates, duration, evening classes, job responsibilities, and union obligations are given to the interviewee.

Both union and employer representatives on the council may ask questions.

The responses and personal factors are evaluated and recorded on a standard interview form prepared by the Apprentice Training Division. The candidates with the highest overall score are usually selected and so notified. Those accepted then wait until notified to report to a job.

The process between application and notification may last from a few weeks up to as much as six months. While waiting an applicant may find other employment which he is reluctant to leave for the apprenticeship opening.

Due to the fact that there are relatively few blacks who are members of the skilled trade unions, the black youths must generally follow the "outsider" path to apprenticeship.

NONUNION APPRENTICESHIP PROGRAMS

The entry into nonunion apprenticeship programs is quite different. The youth hired by an employer with an apprentice program moves almost automatically into apprenticeship. The paper work is generally handled by the employer. The steps of application, testing, and interviewing, except in a very few cases, are not used. The sole requisite is being hired into an apprenticeable job.

Apprenticeship programs for nonunion contractors are arranged on an individual firm basis with the state apprentice training division which sets minimum standards and reviews work and classroom performance. The ratios of apprentices to journeymen are set by the apprentice training division or in case of licensed occupation, by the licensing boards. Related classroom instruction is provided by the state technical schools, as with union programs.

BLACKS COMPRISE 6.6% OF REGISTERED APPRENTICES IN 1968 AND 1969

During calendar years 1968 and 1969 the Apprentice Training Division of the Connecticut Labor Department registered 1,084 new apprentices in the skilled building trades. Starting in 1968 the Division for the first time coded the registration cards with the race of the individual apprentice. Therefore, for 1968 and 1969 it was possible to determine the number and proportion of blacks entering the building trades apprenticeship program.

Since completion of an apprenticeship program is becoming more important to acquire journeyman status in these trades, the number of black apprentices now registered is a good indication of the number who will become journeymen three or four years later when their program is completed. From those now registered, a number must be subtracted for those who will not complete the program. Data on dropouts by race are not available but both apprenticeship and union officials state that the dropout rate for blacks is considerably higher than among white apprentices.

Of the 1,084 registered during the past two years, 72 or 6.6% were blacks. In the carpentry program 25, or 22.5%, were black. The second largest number were the 11 blacks or 3.3% registered in plumbing, followed by 9, or 47.3%, in roofing.

Table IX-4 shows the total number of apprentices registered during the past two years, and the number and proportion of blacks by occupational program.

Based on these ratios of blacks in apprenticeship programs and the stated higher dropout rate of blacks, little change in the ratios of black journeymen, except for carpenters and roofers may be expected for the next four or five years.

Table IX-4
APPRENTICES REGISTERED IN 1968 AND 1969 CONSTRUCTION TRADES
NUMBER AND PROPORTION OF BLACKS

Occupation	Registered in 1968-69 Total	Blacks Number	Blacks %
All	1,084	72	6.6
Bricklayers	54	2	3.7
Carpenters	111	25	22.5
Electricians	226	7	3.1
Sheet Metal Workers	158	6	3.8
Glaziers	13	0	0.0
Ironworkers	62	0	0.0
Plumbers	325	11	3.4
Steamfitters	31	2	6.5
Lathers	2	0	0.0
Roofers	19	9	47.4
Cement Masons	35	4	11.4
Painters	28	6	21.4
Pipe Fitters	5	0	0.0
Sprinkler Fitters	15	0	0.0

X. THE APPRENTICE SURVEY

APPRENTICESHIP ACCEPTED METHOD OF ENTRY INTO SKILLED TRADES

The apprenticeship system is the basic method of entry into the skilled occupations. A five-year apprentice program is now required for licensing in electricity, plumbing, and heating and a three-year apprenticeship required for elevator constructor. In other occupations, a growing proportion of new journeymen have come from apprentice programs. The relatively few who do not include those who learned their trade informally in nonunion projects, or in other areas or countries.

The number of black journeymen is dependent on entry into and completion of an apprenticeship program. The requirements for entry and the relatively few openings limit the number of persons, otherwise trainable, who might become skilled workers.

In order to find out the backgrounds, entry, and attitudes of apprentices already enrolled, the trainees in a number of evening classes were interviewed to determine their:

a. educational attainment

b. source of interest for a construction trade

c. entry experience

d. attitude toward apprenticeship

HIGH SCHOOL COMPLETED BY NEARLY ALL APPRENTICES

In the union apprenticeship programs, 214 out of the 228 interviewed, or 93.7%, had either graduated or received high school equivalency. In the electrician program all but one, or 98.5%, had graduated.

Among non-union apprentices, the proportion with high school completion was somewhat lower, 81.3%. In the nonunion sheet metal course all 11 apprentices had completed high school.

The union programs generally require high school completion as a requisite for admission. In the nonunion programs, anyone employed in the occupation may apply for entrance into an apprenticeship course.

Amont the 228 union apprentices, 32 had one or more years of post high school education. Three of the 56 nonunion apprentices had had some post high school education.

Table X-1 shows the educational attainment and nature of secondary school education of the apprentices interviewed by occupation and by union and nonunion programs.

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SOURCE OF INITIAL INTEREST

In the survey the apprentices were asked, "Please describe how you first got interested in this trade." The most frequent source of initial interest reported was "family" followed by "friends." In union apprenticeship courses, 228 were interviewed with 91 reporting the family and 42 friends as the factors or persons who interested them in their occupation. This comprised 58.3% of the total. Reporting school were 23, military 14, and other 58. The other replies included "self", "liked work", "prior summer work", "money", and others.

The proportion reporting family and friend in nonunion courses was somewhat less. Of the 75 interviewed 19 reported family and 12 friend as the prime source of interest. This was 41.3% of the total as compared with 58.3% for union courses.

Table X-2 shows the source of initial interest in their occupation by union and nonunion programs.

Table X-1
EDUCATIONAL ATTAINMENT OF APPRENTICES

UNION PROGRAMS Occupation	Total Interviewed	Completion Graduated H.S.	Equiv.	% H.S. or Equiv.	Non Grad	Schooling High Sch.	Tech. Sch.	Post H.S.
All	228	200	14	93.7	14	167	61	32
Electrician	68	63	4	98.5	1	45	23	13
Carpenter	38	34	1	92.1	3	27	11	1
Plumber	41	36	3	95.1	2	32	9	7
Sheet Metal	60	52	3	91.7	5	42	18	6
Ironworker	21	15	3	85.7	3	21	0	5
NONUNION PROGRAMS								
All	75	53	8	81.3	14	56	19	3
Electrician	19	11	3	73.7	5	13	6	1
Carpenter	19	16	1	89.5	2	15	4	2
Plumber	26	16	3	73.1	7	22	4	0
Sheet Metal	11	10	1	100.0	0	6	5	0

Table X-2
SOURCE OF INITIAL INTEREST

Occupation	Total Interviewed	SOURCE OF INTEREST Family	Friend	School	Military	Other	% Family or Friend
UNION PROGRAMS							
All	228	91	42	23	14	58	58.3
Electrician	68	27	8	7	7	19	51.5
Carpenter	38	14	9	7	0	8	60.5
Plumber	41	17	7	3	3	11	58.5
Sheet Metal	60	21	17	6	2	14	63.3
Ironworker	21	12	1	0	2	6	61.9
NONUNION PROGRAMS							
All	75	19	12	12	9	23	41.3
Electrician	19	5	4	3	3	4	47.4
Carpenter	19	6	2	5	0	6	42.1
Plumber	26	7	5	1	4	9	46.2
Sheet Metal	11	1	1	3	2	4	18.2

THE ENTRY INTO APPRENTICESHIP

As described earlier, the union apprenticeship program entry procedure involved the setting of a specific number of openings by a joint apprenticeship council, application for entry to the union business agent, testing, and an interview by the joint apprenticeship council.

The test was usually an aptitude test by the local office of the Connecticut State Employment Service. Some trades also required a more specific test given by the local joint apprenticeship council. Following this the applicant had an interview with the joint apprenticeship council and notified later as to their acceptance.

The apprentices were asked, "Please list the steps you had to take to enter the program."

In one of the occupations all union apprentices interviewed had taken all three steps - application, tests, and an interview. In the other occupations some of the apprentices had skipped one or more of the steps. Nearly all of the apprentices who had a family member or friend in the union were helped with certain paper work. Some apprentices were placed directly into an apprenticeship job without any of the steps. Apprentices in an affirmative action program also skipped procedural steps.

The nonunion apprentices interviewed had a different or no procedure for entry into apprenticeship. They were amazed and perplexed over the question. They then explained that they were hired for or promoted to an apprenticeable job. When queried as to applications and forms they replied that they didn't know what was needed as their employer handled all of the paper work. None interviewed had taken any tests or formal oral interviews for entry into apprenticeship.

YOUTHS OUTLOOK ON APPRENTICESHIP

The apprentices were asked to express their feeling toward the apprenticeship programs. Their replies were quite mixed. Among union apprentices a little more than half felt they were valuable and encouraging to youths to enter the occupation. In nonunion courses a little less than half felt this way.

Highest praise came from a number who felt that the classroom learning was essential to supplement on-the-job training and comprehend the job. Major contention in most courses was the mathematics requirements, some feeling it extremely valuable while others, who perhaps had experienced a good deal of difficulty with it, felt the amount required was not necessary.

Largest source of complaints was on the relatively low apprenticeship wages, the evening hours spent in the classes, and the length of the program.

XI. THE STUDENTS

THE HIGH SCHOOL YOUTHS

About three-quarters of the current apprentices are public high school graduates. In order to find out the interest in construction among white and black youths in these schools, a survey of noncollege bound students was made in ten high schools in the four largest Connecticut cities. A total of 112 white and 71 black youths were asked:

1. You will be graduating this June. What type of a job do you expect or hope to get when your complete school?

2. Would you be interested in a skilled job in construction such as a carpenter or an electrician?

3. If you wanted such a job, what steps would you have to take to get one?

4. What are the pay rates for skilled construction workers?

FEW HIGH SCHOOL YOUTHS PLAN TO ENTER CONSTRUCTION

Interviewed in the high schools were 112 whites and 71 blacks. Planning to take a construction job after high school were 8 whites, or 7.1% of the total number of whites, and 2 blacks, or 3.8% of the total number of blacks. Their choices were heavily family oriented. Four of the eight whites have close relatives in construction, two had worked in construction jobs in previous summers, one developed a self interest, and one was going to Alaska where "there is big money" in construction. Both of the blacks had close relatives engaged in skilled construction work.

Of those not expecting to enter construction, 37 whites, or 33.0% said they would be interested in a skilled construction job, as did 24, or 33.8% of the blacks.

Having a fair knowledge of the apprenticeship system and the steps needed to become a skilled tradesman were 47 whites, or 42.0%, and 22 blacks, or 31.0%.

The level of pay rates for skilled construction workers was well known among the youths. Stating that such wages were "high" or in the $5 an hour and over range were 81 or 72.3% of the whites and 36 or 50.7% of the blacks.

Table XI-1 shows the distribution of youths by their construction job expectations, interest, and knowledge.

Table XI-1
The High School Youths
PLANS, INTEREST, AND KNOWLEDGE
IN CONSTRUCTION

	Whites		Blacks	
	Number	%	Number	%
Total Interviewed	112	100	71	100
Planning to take a construction job	8	7.1	2	2.8
Would be interested in a skilled job	37	33.0	24	33.8
Knowledge of Construction				
A. Entry	47	42.0	22	31.0
B. Wages	81	72.3	36	50.7

XI. THE STUDENTS

THE STATE TECHNICAL SCHOOLS

About one-quarter of the apprentices interviewed had attended the state technical schools for their secondary education. These schools have courses for preparing youths for skilled building trades occupations.

Youths entering the technical schools may choose an occupational field or may enroll in an exploratory program during their first year and be exposed to many types of occupations. The majority of youths choose the exploratory track.

In the school year 1968-69, there were 1950 full time day students enrolled in construction related programs of whom 65 or 3.3% were blacks. The two largest occupational fields were electrical with 769 students and carpenters with 690. Many of these students will go into factory and building maintenance work rather than new building construction.

Table XI-2 shows the enrollment in construction related courses and the number and proportion of blacks.

The proportion of blacks and other minority groups enrolled is substantially below that of their proportions in the population. The directors of the schools state that they have a nondiscriminatory policy in admissions and that they do visit schools and send speakers and other literature to P.T.A., and other groups to encourage the entrance of black and Puerto Rican youths. Acceptance of new students is based on "I.Q's, Class Work, Attendance, Punctuality, Aptitude scores in mechanical ability and recommendations of the sending school (usually elementary) counselor or principal."

The directors stated that the relative low enrollment of blacks is due to their deficiencies in these items. A typical answer to the low ratio of blacks in the more highly skilled trades, particularly electrical, plumbing, and sheet metal is, "Let's face it, they (the blacks) just can't do the math."

Table XI-2
STATE TECHNICAL SCHOOLS
ENROLLMENT IN CONSTRUCTION RELATED PROGRAMS
TOTAL AND BLACKS
School Year 1968-1969

Program	Enrollment All	Blacks Number	Blacks %
Total - All Programs	8,078	365	4.5
Construction Programs	1,950	65	3.3
Electrical	769	17	2.2
Carpentry	690	16	2.3
Plumbing	177	10	5.6
Construction Drafting	86	3	3.5
Sheet Metal	81	1	1.2
Masonry	75	8	10.2
Painting	44	6	13.6
Air Conditioning	15	0	0.0
Welding	13	4	30.8

Source: Commission on Human Rights and Opportunities

THE COLLEGE STUDENTS

A frequent comment as to the reason for so few blacks in the skilled building trades was that those who have the academic ability to do well on apprenticeship tests are given scholarships, encouragement, and other inducements to go to college.

A limited survey of both white and black college students was made to find out their attitude toward and interest in construction.

The key question in the survey was:

> "Skilled jobs in construction, such as electrician, plumber, carpenter will soon pay from $16,000 to $20,000 a year. As a college student you obviously have the aptitude to qualify for training in these jobs. Would you be interested in such a career, which will probably pay more than your stated choice?"

Fifteen whites and three blacks were interviewed and with one exception all said "no." Typical replies were, "Stereotype makeup of employees not one to be desired," "Wouldn't like sameness of job," "Physically too light. Not mechanically oriented," "Incompatible to type of work or workers," "Not my bag." The one "Yes", a white, stated, "If in a supervisory or coordinating position, or handling contract bidding."

The number interviewed was limited by disruptions on campuses this spring and therefore the size of the sample is not statistically significant. However, informal talks with many other students indicate

that the same results would have been obtained with a larger and adequate sample.

Four college students working at journeyman's rate of pay last summer were asked a similar question. All indicated emphatically that they had no intention of remaining in construction after leaving college. Typical of their attitude was that of a journeyman painter whose father owned the painting firm and who said, "I'd rather die than do this (indicating a sweeping painter's motion) the rest of my life."

XII. THE LICENSING LAWS

STATE LICENSES REQUIRED FOR ELECTRICIANS, PLUMBERS, STEAMFITTERS, AND ELEVATOR CONSTRUCTORS

The General Statutes require that any person who engages in the field of electrical work, or plumbing and piping, or heating, piping, and cooling, or elevator installation, repair and maintenance work, as a journeyman or as a contractor must be licensed. Two types of licenses are issued; one unlimited, and one limited to a certain function as determined by the respective boards.

The licensing in each of the four fields is handled by a board of five, two of whom are licensed journeymen, two licensed contractors, and one a public representative. The public representative is the chairman of each board and the work of each board is carried out by a paid executive secretary.

The requirement of licenses in each of these four areas is due to the potential danger to the public from defective work. Prior to 1965, each journeyman or contractor had to be licensed separately by each town in which he performed work. In 1965 a statewide license was made optional, and in 1967 mandatory.

Applicants for journeymen electrical, plumbing and heating licenses must have at least a grammar school education. No educational requirements are stated for elevator journeyman's license.

The experience requirements for electrical, plumbing, and heating journeymen's licenses are five year's work as an apprentice. For an elevator constructor's license, two year's work experience is required.

The Boards prescribe the maximum ratio of apprentices who may be hired in relation to contractors and journeymen. In electrical trades one apprentice may be hired for a contractor, one for the first journeyman, and one for each additional three journeymen. In plumbing and heating, one may be hired for

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the contractor and one for each additional three journeymen. In elevator construction, one apprentice may be hired for the contractor and one for each journeyman.

Fewer apprentices may be used and most union contracts call for more restrictive apprenticeship ratios than provided by the boards.

All applicants for contractors licenses are required to have at least two year's work experience as a journeyman.

The total number licensed in Connecticut at the start of the year was 19,688 of whom 9,327 were journeymen and 10,361 contractors. Not all of these persons work at construction sites. Many are employed for home repair work and for office, store, and industrial plant maintenance work.

The distribution of the licensees by occupation is shown in Table XII-1.

No data by race are maintained by the licensing boards. Based on other data presented elsewhere in this report, it may be assumed that the number of blacks licensed in these occupations is somewhat less than 1% or around 150 of the total 19,688 licensed.

The number of licensed blacks reflect the low number of black applicants. A five-year work experience is required in the three large licensed occupations and two years in the small elevator field. The section on apprentices shows a low number of blacks in the apprentice programs for these occupations.

Tests for licenses are all written. The questions are practical based on state or national codes for the respective occupations. The testing procedures were observed and appear to be objective.

While no records of applicant by race are maintained, the number of blacks taking examinations during the fourth quarter of 1969 were observed and recorded as shown in Table XII-2.

Table XII-1
Licensed Occupations

NUMBER OF PERSONS LICENSED
JANUARY 1970

ALL FOUR OCCUPATIONS

	All	Full License	Limited License
Total	19,688	14,655	5,033
Journeymen	9,327	7,370	1,957
Contractor	10,361	7,285	3,076

HEATING, PIPING, COOLING

	All	Full License	Limited License
Total	6,580	4,183	2,397
Journeymen	3,121	1,817	1,304
Contractor	3,459	2,366	1,093

PLUMBING AND PIPING

	All	Full License	Limited License
Total	6,239	4,380	1,859
Journeymen	2,558	2,142	416
Contractor	3,681	2,238	1,443

ELECTRICAL

	All	Full License	Limited License
Total	6,564	5,794	770
Journeymen	3,379	3,146	233
Contractor	3,185	2,648	537

ELEVATOR CONSTRUCTOR

	All	Full License	Limited License
Total	305	298	7
Journeymen	269	265	4
Contractor	36	33	3

Table XII-2
LICENSING TESTS HELD
4TH QUARTER 1969

Occupation	Total Taking Tests	BLACKS Tested	BLACKS Passed
Heating	70	1	1
Electrical	104	5	0
Plumbing	71	1	1
Elevator	no test held		

XIII. AFFIRMATIVE ACTION PROGRAMS

PLANS TO INCREASE BLACK WORKERS IN SKILLED BUILDING TRADES

During the past two years in particular, criticism of the lack of black workers in skilled construction jobs has mounted. This criticism has been directed at the building industry in general and at the labor unions in particular. Recognizing this criticism, the unions representing skilled workers, in which the number of blacks is low, have generally made efforts to seek out and recruit black workers. The reasons given for this are to:

1. Improve our image
2. Meet requirements of the model cities regulations
3. Meet other government requirements
4. Meet our social and moral responsibilities

These programs are of two types. The first is informal in which the union through its business agent seeks out black youths for entry in the apprenticeship program. Community action agencies, church groups, human relation councils, and other groups working with disadvantaged groups are notified of apprenticeship openings and encouraged to refer youths. Some business agents have sought out blacks working on nonunion projects.

The second is a formal type in which disadvantaged youths are given pre-employment training and on-the-job training under a special supervisor for a limited number of months. These programs are generally funded by the U.S. Office of Economic Opportunity or the U.S. Labor Department.

Under both of these types, the entry requirements are sometimes relaxed but the apprentice training standards are strictly maintained. The reasons stated for maintaining these standards are:

1. Health and safety of fellow workers
2. Health and safety of future occupants of the structure

3. "I've been through the program and will work with anyone who goes through the same program. But don't send anyone on the job who has shortcut the training requirements."
4. Because of the cultural and educational background of the disadvantaged, they need at least the same amount of training as other apprentices.

The largest number of formal programs have been in carpentry and are funded by a multimillion dollar grant to the Carpenters International which has allocated funds to locals throughout the nation. The nature of the formal programs are outlined below.

THE UNION CARPENTERS PROGRAMS

The program bringing the largest number of blacks into the skilled trades is that in carpentry. The United Brotherhood of Carpenters and Joiners of America has a three and a half million dollar contract with the U.S. Labor Department for training and bringing into apprenticeship disadvantaged youths. These programs are carried out by locals of the union through the Joint Apprenticeship Council with the support of contracted employers. A number of cities in Connecticut have successfully completed such programs.

Basically, the program starts with an eight-week instructional classroom course followed by automatic entry into the union apprenticeship program. The first 18 weeks of the apprenticeship period involves a coach trainer who closely supervises, trains, helps and acts as a counselor and advisor to the young workers.

During the eight week classroom period, the trainees receive $54 a week subsistence pay under the Manpower Training and Development Act. During the 18 week probationary period they are paid the regular apprentice-

ship wages which are 55% of the journeymen's wages. Out of these earnings the trainees must buy tools and pay union dues and fees.

The disadvantaged youths are recruited through the local offices of the Connecticut State Employment Service, the Urban League, and other concerned groups.

The carpenter training projects, the number of youths trained, and the racial composition, where available, are listed below:

City and Date	Eight Week Pre-employment Enrollees	Entered Apprenticeship 18 Week Probationary Period Under Coach Trainer
STAMFORD November 1968	Screened 47 Selected 20 Completed 17	Entered 17 Whites 8 Blacks 9
WATERBURY April 1969	Enrolled 20 Whites 14 Blacks 5 Span.Am. 1	Entered 11 Whites 7 Blacks 3 Span.Am. 1
TORRINGTON June 1969	Enrolled 20	Enrolled 11 Whites 8 Blacks 2 Span.Am. 1
HARTFORD July 1969	Enrolled 20 Whites 15 Blacks 5	Enrolled 14 Whites 11 Blacks 3
NEW HAVEN July 1969	Enrolled 15 Whites 8 Blacks 5 Span.Am. 2	Enrolled 9 Whites 7 Blacks 2
HARTFORD February 1970	Screened 43 Enrolled 20 Blacks 20	Enrolled 18 Blacks 18

A number of additional projects of this type are in the planning stage or ready to go during 1970.

CARPENTERS - THE HOME BUILDERS ASSOCIATION PROGRAMS

Similar programs were arranged by the Connecticut Labor Department with home builders associations in Hartford, New London, and New Haven. The home builders generally do not use union labor. These programs included the 8-week pre-employment training, during which the trainees received $54 a week followed by 18 weeks on-the-job under a coach trainer. Wages during the training period were agreed to be at least equal that of apprentices. These programs were started in the spring and summer of 1969 and encountered placement problems due to the slowdown of home building during the second half of the year due to various reasons.

City and Date	Eight Week Pre-employment School		Entered Employment 18-Week Probationary Period Under Coach Trainer	
HARTFORD	Enrolled	18	Entered	11
April 1969	Completed	11	Whites	7
	Whites	7	Blacks	3
	Blacks	3	Sp.Am.	1
	Sp.Am.	1		
NEW LONDON				
April 1969	Enrolled	20	Entered	8
	Completed	15	Whites	5
	Whites	7	Blacks	2
	Blacks	7	Sp.Am.	1
	Sp.Am.	1		
NEW HAVEN	Enrolled	15	Entered	3
July 1969	Whites	8	Whites	2
	Blacks	5	Blacks	1
	Sp.Am.	2		

CEMENT MASONS AND PLASTERERS

The U.S. Labor Department negotiated a national training program for cement masons and plasterers with the Portland Cement Association and the Operative Plasterers International Union. This is similar to the previously mentioned national program for carpenters except that the pre-employment training, during which trainees received $54 a week, was six weeks rather than the eight. The probationary apprentice period under a coach trainer was 18 weeks. One program under this was held in Connecticut. It started in July 1969 at the technical school in Ansonia. Fifteen disadvantaged youths, all non-high school graduates, including eight whites, six blacks, and one Spanish American were enrolled. Of these, 12 completed (6 whites, 6 blacks) the pre-employment phase and were placed in employment as apprentices. A class of 15 under this program is scheduled to start in July 1970.

THE PAINTERS PROGRAM

A program for training painters was coordinated by the State Labor Department under the Manpower Development and Training Act in New Haven and started in September 1969. No pre-employment class training was involved and 30 youths started as probationary apprentices for a 20 week period under a coach trainer. The 30 youths who started included 19 whites, 5 blacks, and 6 Puerto Ricans. Eleven, of whom seven were whites, one black, and three Puerto Ricans, completed the 20 weeks and continued on in apprenticeship.

THE OPERATING ENGINEERS PROGRAM

The operating engineers union provided a 12-week training program for 50 disadvantaged youths

starting in January 1969. This was unique in that the youths lived in from Monday to Friday at the training site, Camp Dempsey in Niantic, Connecticut. This program was coupled with an upgrading program for 100 union members which was financed by a grant from the international union. The financing for the disadvantaged youths' program was by a $100,000 grant from the Connecticut Department of Community Affairs.

The 50 youths were recruited by community action agencies in the six largest cities in the state. They received $54 a week plus room and board. The objective of the program was to train the youths so that at the end of the 12 weeks they could enter employment as full fledged journeymen and be entitled to union membership.

Equipment was furnished by the state, private contractors, and by the union. Union journeymen were used as instructors for on-the-job training. Related classroom teachers came from the New London public school system.

The 50 disadvantaged youths were all non-whites. Completing the course were 46. Data as to the job success is somewhat conflicting. One report says that 44 were employed after completing the course. Another says that 11 of the 50 obtained jobs as journeymen operating engineers. A third says that 17 were unemployed in midsummer.

MODEL CITIES PROGRAM

The model cities program requires the maximum use of minority group workers on construction projects. In the Bridgeport area, a plan has been developed for the use of one black trainee for each journeyman employed with all age and educational requirements waived. In Hartford, an agreement has been reached for the use of

minority group workers and contractors in the rehabilitation of homes in blighted neighborhoods. A one to one ratio of black trainees to journeymen is also required.

PROGRAMS PLANNED FOR 1970

A number of additional programs have been funded and ready to go for this year. They are of the type which provides six or eight weeks of pre-employment training with assured entry into apprenticeship and an 18-week probationary period under a coach trainer. Some of these are:

Occupation	City	Start. Date	Weeks Pre-Employment	On the Job Coach Tr.	Enrollees
Carpenter	New Haven	July 1970	8	18	20
Cement-Mason Plasterers	New Haven	June 1970	6	18	15
Bricklayers	Bridgeport	July 1970	6	18	15
Bricklayers	Hartford	July 1970	6	18	15
Sheet Metal Workers	Hartford	July 1970	6	20	15

ELECTRICIANS - HARTFORD

A program for assisting minority group workers enter the electrician field has been in effect in the Hartford area since last September. This is a joint effort between the Urban League and the Joint Apprenticeship Council.

The main feature of this is the special recruitment effort and the setting aside of a number of apprentice slots for minority group youths. No special training is provided nor are any entry requirements waived. Ten apprentice slots were reserved for blacks last Fall. From September to December six blacks were enrolled. Twenty new slots were opened in December and by May none were filled. The Urban League interviewed 50 prospective apprentices and referred 32 J.A.C. none of whom were enrolled.

According to the Urban League, the problem with the enrolling of blacks as apprentices is the entry specifications which require a high school diploma and a transcript of high school grades, often difficult to obtain by youths who have moved up from the South, passing a test prescribed by the international union, and a physical exam at the applicant's expense.

The Joint Apprenticeship Council states that it must maintain these requirements because of the potential danger to fellow workers and subsequent occupants inherent in electrical work. The council expects to open 50 apprentice opportunities next September with special preference for minority group youths.

A P P E N D I X

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Affirmative Action Or Non-Discrimination Clauses in Labor Management Contracts — A7

APPENDIX C

Apprenticeship Ratios in Labor Management Contracts — A9

Table I
CONSTRUCTION IN CONNECTICUT
Number and Amount of Building Permits
State Highway Contracts Awarded
State-Town Aid for Roads
Amounts are in Millions of Dollars

Year	Total Amt. Bldg. and Roads	Total Amt. Bldg. Permits (Millions)	BUILDING PERMITS						HIGHWAYS		
			Residential		Commercial and Industrial		Additions and Alterations				
			Units	Amount (Millions)	Permits	Amount (Millions)	Permits	Amount (Millions)	Total	Highway Contract Awards	State & Town Aid for Roads
1959	-	$414.0	17,530	$224.5	6,185	$136.2	19,403	$51.1	-	-	$9.0
1960	$470.9	407.4	15,800	209.2	6,323	135.4	21,047	58.5	$63.5	$54.5	9.0
1961	460.8	412.9	15,528	204.9	6,248	141.8	21,111	64.7	47.9	38.9	9.0
1962	499.8	426.6	17,370	224.2	5,953	137.6	22,962	58.3	73.2	63.7	9.5
1963	590.3	458.4	18,928	240.3	6,713	143.4	24,247	70.3	131.9	122.0	9.9
1964	651.1	540.6	24,370	302.6	6,477	145.7	23,686	88.4	110.5	100.6	9.9
1965	664.8	574.2	24,541	307.2	7,208	178.7	22,699	81.5	90.6	80.7	9.9
1966	675.6	620.2	21,091	272.3	6,871	236.0	22,335	109.9	55.4	44.4	11.0
1967	669.5	596.6	19,814	275.1	6,859	216.7	22,300	103.7	72.9	61.9	11.0
1968	866.5	796.5	24,929	339.1	6,911	328.7	22,383	124.4	70.0	56.3	13.7
1969	923.4	845.9	25,593	338.6	6,597	349.6	22,363	157.8	77.5	63.8	13.7

Table II
Blacks in the Building Trades
HOW WORKERS BECAME INTERESTED IN OCCUPATIONS
UNION WORKERS BY WHITE AND BLACK & BY OCCUPATION

Occupation	WHITE Total Interviewed	WHITE Source of Interest: Family	Friend	School	Other	BLACK Total Interviewed	BLACK Source of Interest: Family	Friend	School	Other
Total	312	129	25	30	128	75	14	3	4	54
Electrician	37	11	3	13	10	1	0	0	0	1
Plumber	48	24	5	1	18	3	1	0	2	0
Carpenter	71	29	2	16	24	12	2	0	2	8
Sheet Metal	14	5	3	0	6	0	0	0	0	0
Iron Worker	16	10	2	0	4	0	0	0	0	0
Bricklayer	37	20	2	0	15	7	4	1	0	2
Cement Mason	12	6	2	0	4	6	0	1	0	5
Painter	8	6	1	0	1	1	0	0	0	1
Elevator Constructor	5	2	1	0	2	0	0	0	0	0
Roofer	4	2	0	0	2	0	0	0	0	0
Glazier	4	1	2	0	1	1	0	0	0	1
Equipment Operator	37	11	1	0	25	9	2	1	0	6
Laborer	12	1	1	0	10	30	4	0	0	26
Excavator Grader	3	1	0	0	2	2	0	0	0	2
Asphalt Paver	1	0	0	0	1	0	0	0	0	0
Heavy Truck Driver	3	0	0	0	3	3	1	0	0	2

APPENDIX A

Table II
Blacks in the Building Trades

HOW WORKERS BECAME INTERESTED IN OCCUPATIONS

NONUNION WORKERS BY WHITE AND BLACK & BY OCCUPATION

	W H I T E					B L A C K				
		Source of Interest					Source of Interest			
Occupation	Total Interviewed	Family	Friend	School	Other	Total Interviewed	Family	Friend	School	Other
Total	166	62	22	14	68	31	8	1	0	22
Electrician	21	7	1	6	7	0	0	0	0	0
Plumber	13	5	3	1	4	5	1	0	0	4
Carpenter	69	29	7	7	26	5	1	1	0	3
Sheet Metal	2	0	0	0	2	0	0	0	0	0
Iron Worker	1	0	0	0	1	0	0	0	0	0
Bricklayer	13	8	1	0	4	3	1	0	0	2
Cement Mason	8	2	1	0	5	4	2	0	0	2
Painter	12	5	2	0	5	2	0	0	0	2
Equipment Operator	8	1	2	0	5	1	0	0	0	1
Laborer	9	2	2	0	5	11	3	0	0	8
Asphalt Paver	10	3	3	0	4	0	0	0	0	0

Table III
Blacks in the Building Trades

APPRENTICESHIP

NATURE OF TRAINING FOR OCCUPATION

WHITE

Occupation	U N I O N All Interviewed	U N I O N Registered Apprenticeship Program	U N I O N Informal On-the-Job Training	U N I O N % Apprenticeship	N O N U N I O N All Interviewed	N O N U N I O N Registered Apprenticeship Program	N O N U N I O N Informal On-the-Job Training	N O N U N I O N % Apprenticeship
Total	252	136	116	54.0	125	18	107	14.4
Carpenters	71	24	47	33.8	68	6	62	8.8
Plumbers, Steamfitters	48	32	16	66.7	13	4	9	30.8
Electricians	37	19	18	51.4	21	7	14	33.3
Bricklayers & Stone Masons	37	21	16	56.8	13	1	12	7.7
Ironworkers	16	10	6	62.5	1	0	1	0.0
Cement Masons & Finishers	12	8	4	66.7	7	0	7	0.0
Painters	8	5	3	62.5	0	0	0	0.0
Sheet Metal	14	13	1	93.0	2	0	2	0.0
Elevator Constructors	5	2	3	40.0	0	0	0	0.0
Glaziers	4	2	2	50.0	0	0	0	0.0

APPENDIX A

Table IV
Blacks in the Building Trades

APPRENTICESHIP

NATURE OF TRAINING FOR OCCUPATION

BLACKS

Occupation	UNION All Interviewed	UNION Registered Apprenticeship Program	UNION Informal On-the-Job Training	UNION % Apprenticeship	NONUNION All Interviewed	NONUNION Registered Apprenticeship Program	NONUNION Informal On-the-Job Training	NONUNION % Apprenticeship
Total	32	11	21	34.4	19	1	18	5.3
Carpenters	13	3	10	23.1	5	0	5	0.0
Plumbers, Steamfitters	3	3	0	100.0	5	1	4	20.0
Electricians	2	2	0	100.0	0	0	0	0.0
Bricklayers & Stone Masons	7	2	5	28.6	3	0	3	0.0
Ironworkers	0	0	0		0	0	0	
Cement Masons and Finishers	6	1	5	16.7	4	0	4	0.0
Painters	1	0	1	0.0	2	0	2	0.0

AFFIRMATIVE ACTION OR NON-DISCRIMINATION CLAUSES IN LABOR MANAGEMENT CONTRACTS

APPENDIX B

CLAUSE A

Discrimination in hiring, placement, classification, upgrading, layoff, termination of employment by reason of race, creed, color, sex, national origin, physical defects, or union membership is prohibited.

CLAUSE B

Discrimination prohibited by employer or employee as a result of race, color, creed, national origin, or union membership.

CLAUSE C

a. Non-discrimination by employer on basis of race or color.

b. The union will participate in affirmative action plan of employer.

c. The business agent of the union will attend any equal employment conference dealing with construction projects in his jurisdiction.

CLAUSE D

a. Union will not discriminate by reason of race or color, or national origin, except that American citizens will get first preference.

b. Union will take positive action in acceptance of new members and union members will be treated equally without regard to race or color in regard to recruitment, recruitment advertising, up-grading, demotions, transfer, germinations, rates of pay, or selection for training.

c. Union will advertise as nondiscriminatory.

d. Union will furnish information and reports required, and will permit access to its books, records and accounts, as they apply to nondiscrimination.

e. In event union does not comply with nondiscrimination clauses, contractors may hire minority group employees who will automatically become members in seven days.

CLAUSE E

Employer assumes and union agrees that union membership is open without regard to race, religion, or national origin.

CLAUSE F

Neither union nor contractor shall discriminate on account of race, color, or national origin.

APPENDIX C

APPRENTICE RATIOS IN LABOR MANAGEMENT CONTRACTS

Occupation	Number of Contracts	RATIOS	Limit
Asbestos Workers	1	1 for each 4 journeymen	-
Bricklayers	1	1 for each 5 journeymen	-
Carpenters	1	1 for first 1 journeyman; 1 for next 7	2
	1	1 for first 2 journeymen; 1 for each additional 4	-
	2	1 for first 3 journeymen; 1 for next 5	2
	1	1 for each 5 journeymen	-
	1	Ratios to be set by Joint Apprenticeship Council	-
Electricians	1	1 for first 1 journeyman; 1 for each additional 2	-
	1	1 for first 1 journeyman; 1 for each additional 5	-
	1	1 for each 5 journeymen	8
Glazier	1	1 for each 3 journeymen	-
Painter	1	1 for first 3 journeymen; 1 for each additional 10	3
	1	1 for each 5 journeymen	3
	4	1 for each 8 journeymen	3
Plumber	1	1 for the first journeyman; 1 for each additional 5	5
	3	Ratios to be set by Joint Apprenticeship Council	
Sheet Metal Workers	1	1 for each 4 journeymen	-
	1	1 for each 6 journeymen	-
Steamfitters	1	Ratios to be set by Joint Apprenticeship Council	

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